


UNIVERSITY OF TORONTO DEGREE PROGRAMMES
IN EXTENSION WINTER SESSION 1970 1971 SUMMER SESSION 1971



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UNIVERSITY OF TORONTO
DIVISION OF
UNIVERSITY EXTENSION

DEGREE PROGRAMMES 1970-1971

SUMMER 1971

FACULTY OF ARTS AND SCIENCE

FACULTY OF APPLIED SCIENCE AND ENGINEERING

THE COLLEGE OF EDUCATION

SCHOOL OF NURSING

SCHOOL OF PHYSICAL AND HEALTH EDUCATION

FACULTY OF FOOD SCIENCES (Type A)

COURSES BEGIN

Winter Session — September 21, 1970

Summer Evening Session — May 17, 1971

Summer Day Session — July 5, 1971



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UNIVERSITY AND FACULTY OFFICERS

(PARTIAL LISTING)

1969-1970

Chancellor O. M. Solandt, O.B.E., M.A., M.D., D.Sc., LL.D., F.R.C.P., F.R.S.C.
President and Chairman of the Council
of the Faculty C. T. Bissell, M.A., Ph.D., D. ès L., D.Litt., LL.D., F.R.S.C.
Executive Vice-President (Academic) and Provost J. H. Sword, M.A.
Vice-President and Registrar,
and Secretary of the Senate R. Ross, M.B.E., M.A.
Director of University Extension G. H. Boyes, M.A.
Chief Librarian R. H. Blackburn, M.A., B.L.S., M.S., LL.D.
Director of Admissions E. M. Davidson, B.A.
Director of Student Awards Miss H. L. Reimer, B.A., B.Ped.
Officer (Secondary School Liaison) W. A. Hill
Director of Statistics and Records J. M. Tusiewicz, M.A.Sc., M.B.A.
Director of University Health Service .. G. E. Wodehouse, M.C., M.D., F.R.C.P.(C), M.R.C.P.
Assistant Director of University Health Service
—Women Miss F. H. Stewart, B.A., M.D.
Director of Career Counselling and
Placement Centre A. W. Headrick, M.A.
Director of International Student Centre Mrs. K. Riddell, B.A.
Director of the Advisory Bureau D. J. McCulloch, B.A., M.D., D.Psych., F.R.C.P.(C)
Director of Housing Service Mrs. M. G. Jaffary, B.A.
Warden of Hart House E. A. Wilkinson, B.A.
Director of Athletics and Physical Education
—Men W. A. Stevens, B.S.
Director of Athletics and Physical Education
—Women Miss A. Hewett, B.Ed., P.E.
Comptroller J. H. Lee, C.A.

FACULTY OF ARTS AND SCIENCE

Dean Emeritus S. Beatty, M.A., Ph.D., LL.D., F.R.S.C.
Dean A. D. Allen, B.Sc., Ph.D.
Associate Dean A. C. H. Hallett, B.A., Ph.D.
Associate Dean G. A. B. Watson, M.A., S.T.B.
Assistant Dean and Secretary W. D. Foulds, B.A.
Associate Secretary R. B. Oglesby, C.D., M.A.
Assistant Secretary C. R. C. Dobell, B.A.

FACULTY OF APPLIED SCIENCE AND ENGINEERING

Dean J. M. Ham, B.A.Sc., S.M., Sc.D.(M.I.T.)
Associate Dean W. F. Graydon, M.A.Sc., Ph.D.(Minn.)
Counsellor W. G. MacElhinney, B.A.Sc., M.A.Sc.
Assistant Dean and Secretary J. A. Gow, B.A.Sc.
Assistant Secretary W. J. Dowkes, B.A.Sc.

THE COLLEGE OF EDUCATION

Dean D. F. Dadson, B.A., B.Ed.
Assistant Dean H. O. Barrett, C.D., B.A., D.Paed., F.O.T.F.
Counsellor J. W. Greig, B.A., B.Ed., M.Ed., Ed.D.

SCHOOL OF NURSING

Director Helen M. Carpenter, B.S., M.P.H., D.Ed.
Associate Director M. Kathleen King, M.S.N.
Counsellor J. Dalziel, B.A., M.A.
Secretary Miss E. G. Burgess

SCHOOL OF PHYSICAL AND HEALTH EDUCATION

Director J. H. Ebbs, M.D., F.R.C.P.(C), F.R.C.P. (Lond), D.C.H.
Secretary of the School and Counsellor J. V. Daniel, B.P.H.E., B.A., M.S.
Administrative Office 121 St. Joseph Street, Toronto 181, Ontario

DIVISION OF UNIVERSITY EXTENSION

Associate Director E. M. Gruetzner, B.A.
Senior Counsellor A. R. Waugh, B.A.
Assistant Counsellors W. H. Bateman, B.A.
Miss I. A. Hossé, M.A.
J. A. MacMillan, B.Com., B.Ed.
M. B. Ross, B.A.
Supervisor Information Centre Mrs. D. M. Deane, B.A.
Assistant G. B. Miller
Supervisor Registration Mrs. M. M. Pearson

For Information on Degree Programmes:

Telephone: 928-2405 (8:45 a.m. - 9:00 p.m. Mon. - Fri.)
928-2393 (5:00 p.m. - 8:00 p.m. Mon. - Thurs.)

SCHEDULE OF DATES

Winter Session 1970-71

| | |
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| <i>August 1</i> | Last day for new and special students to apply for admission. |
| <i>August 15</i> | Last day to enrol in courses. |
| <i>September 10</i> | Last day for acceptance of registration forms without late fee. |
| <i>September 14</i> | Lectures and laboratory classes begin in the Faculty of Applied Science and Engineering. |
| <i>September 15</i> | Last day for acceptance of registration forms with \$10.00 late fee. |
| <i>September 21</i> | Lectures and laboratory classes begin in Faculty of Arts and Science. |
| <i>September 30</i> | Last day for acceptance of registration forms with \$20.00 late fee. After September 30, registration for Winter Session 1970-71 will not be permitted. |
| <i>October 12</i> | Thanksgiving Day (lectures cancelled). |
| <i>October 15</i> | Last day for change of course. |
| <i>November 20</i> | Last day for withdrawal from Fall half-course without academic penalty. |
| <i>November 27</i> | Fall Convocation. |
| <i>November 30</i> | Last day for students with supplemental privileges to apply to write the annual examinations. |
| <i>December 11</i> | Last day to register for Second (Spring) Term courses. |
| <i>December 18</i> | Last day of lectures First (Fall) Term. |
| <i>January 4</i> | Second Term begins. Examinations in Fall half-courses will be held during the first week of the Second Term. |
| <i>February 1</i> | No Second Term course may be begun after this date. |
| <i>February 15</i> | Last day for withdrawal from Winter Session (or Spring half-course) without academic penalty. |
| <i>February 14-20</i> | Reading week — lectures and laboratory classes will not be held. |
| <i>April 17</i> | Last day of lectures. |
| <i>April 19-May 7</i> | Annual examinations. |
| <i>May 28</i> | Start of University Commencement. |

Summer Evening Session 1971

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|---------------------|--|
| <i>April 1</i> | Last day for new and special students to apply for admission. |
| <i>April 15</i> | Last day to enrol in courses. |
| <i>May 1</i> | Last day for acceptance of registration forms and payment of fees without late fee. |
| <i>May 8</i> | Last day for acceptance of registration forms with \$10.00 late fee. |
| <i>May 15</i> | Last day for acceptance of registration forms with \$20.00 late fee. After this date, registration for Summer Evening Session will not be permitted. |
| <i>May 17</i> | Summer Evening Session begins. |
| <i>May 31</i> | Last day for change of course. |
| <i>June 30</i> | Final day for withdrawal from Summer Evening Session without academic penalty. |
| <i>July 1</i> | Dominion Day (all lectures cancelled). |
| <i>July 10</i> | Last day for students with supplemental privileges to apply to write the August examinations. |
| <i>August 2</i> | Civic Holiday (all lectures cancelled). |
| <i>August 13</i> | Last day of lectures. |
| <i>August 16-20</i> | August examinations. |

Summer Day Session 1971

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|--------------|--|
| May 15 | Last day for new and special students to apply for admission. |
| June 1 | Last day to enrol in courses. |
| June 18 | Last day for acceptance of registration forms and payment of fees without late fee. |
| June 25 | Last day for acceptance of registration forms with \$10.00 late fee. |
| June 30 | Last day for acceptance of registration forms with \$20.00 late fee. After this date, registration for Summer Day Session will not be permitted. |
| July 5 | Summer Day Session begins. |
| July 10 | Last day for students with supplemental privileges to apply to write the August examinations. |
| July 13 | Last day for change of course. |
| August 1 | Last day for withdrawal from Summer Day Session without academic penalty. |
| August 2 | Civic Holiday (all lectures cancelled). |
| August 13 | Last day of lectures. |
| August 16-20 | August examinations. |

1970

September

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November

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December

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1971

January

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March

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April

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May

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July

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August

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September

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October

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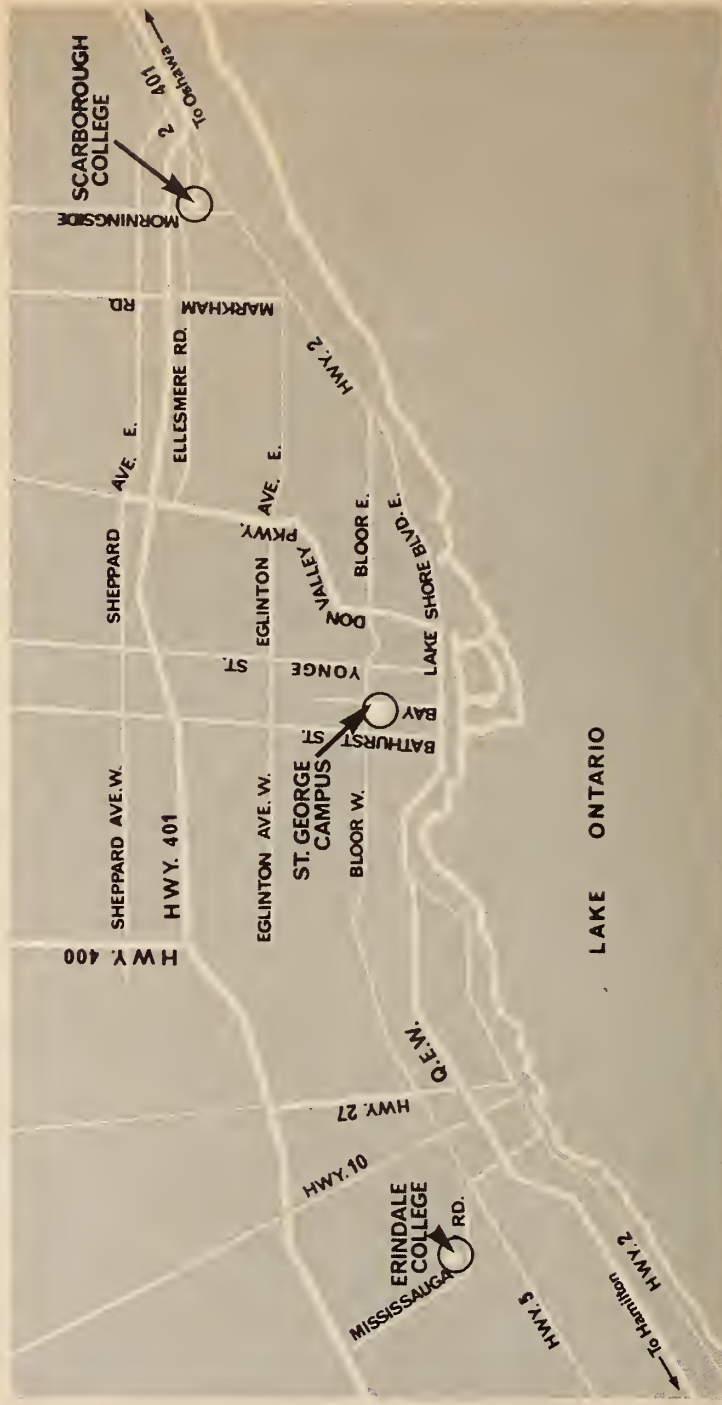
November

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December

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UNIVERSITY OF TORONTO CAMPUS LOCATIONS



INTRODUCTION

The object of the Division of University Extension is to make available the resources of the University of Toronto to adults who are prepared to engage in systematic study. In a technological society in which rapid change is a constant influence, education is a continuing and life-long process. The effect of this change requires not only greater numbers of highly trained specialists, but also generalists equipped to understand and to integrate specialist functions.

The new programme in Arts and Science allows the student to pursue his own intellectual interests and abilities through the individual structuring of his programme of study. The principle that all students should be allowed access equally to academic resources of the highest quality and the greatest range in order to fulfill their academic interests is the underlying basis of the new programme.

There are approximately twenty thousand extension students engaged in part-time study at the University of Toronto. Many of these students are registered in programmes of study leading to a University of Toronto degree, diploma, or certificate. Others are registered in non-degree courses in the business and professional areas and in the liberal arts. A large number of students pursue courses by correspondence. This calendar provides information on degree programmes for men and women who may wish to continue their education and development through part-time study. For information on the other educational opportunities available to part-time students, contact The Division of University Extension, University of Toronto.



APPLICATION FOR ADMISSION

Application for admission to the University and registration for courses are two separate procedures. New students may not register for specific courses until they have first applied for admission and been accepted.

The Undergraduate Admission Handbook 1971-72 contains complete information on admission requirements and application procedures. Requests for the Handbook and inquiries regarding admission requirements should be directed to:

**Office of Admissions,
Simcoe Hall,
University of Toronto,
Toronto 181, Ontario.**

CLASSIFICATION OF STUDENTS

There are two types of students registered in degree programmes in the Division of University Extension: Regular Students and Special Students.

REGULAR STUDENTS

Those part-time students who are proceeding to a degree of the University of Toronto in the Division of University Extension.

NEW REGULAR STUDENTS must submit a regular student application for admission and provide evidence of meeting the admission requirements before registering for specific courses. A ten dollar (\$10.00) non-refundable service fee is required of all applicants except those in full-time attendance in the final year of a Canadian Secondary School or those whose last academic work was done at the University of Toronto. This fee must be remitted by money order or certified cheque (payable to the University of Toronto) and must accompany the completed application.

The following documents must also accompany the completed application:

- (1) An Ontario Grade 13 Certificate or an equivalent certificate.
- (2) A birth certificate must be submitted by applicants seeking admission as mature students.
- (3) A transcript proving graduation from the College of Education in a one year High School Assistant's Programme Type B prior to May 1970 and the Permanent High School Assistant's Certificate must be submitted by applicants seeking admission to the Bachelor of Education programme of the College of Education.
- (4) A transcript of professional training from a recognized Diploma School of Nursing must be submitted by applicants seeking admission to the Degree Course for Graduates of Diploma Schools of Nursing.

- (5) An official transcript must be submitted by applicants who previously attended a university. Such applicants must arrange for an official transcript of their record to be sent to the Office of Admissions.

Candidates applying for admission as part-time students to the following faculties or schools are to submit a regular student application:

Faculty of Arts and Science
Faculty of Applied Science and Engineering
The College of Education
School of Nursing
School of Physical and Health Education

The Bachelor of Arts, Bachelor of Science, and Bachelor of Education degrees may be obtained through part-time study.

The first year of the Engineering programme; the first year of the Physical and Health Education programme; the first and second years of the Nursing programme may be completed through part-time study.

The second, third and fourth years of the Engineering programme; the second, third and fourth years of the Physical and Health Education programme; the third year of the Nursing programme must be completed through full-time study.

Applications for admission to the Faculty of Applied Science and Engineering may be submitted for the Winter Evening Session and the Summer Evening Session; applications for admission to the School of Nursing may be submitted for the Winter Evening Session.

Upon receiving a Letter of Admission from the Director of Admissions which indicates acceptance to the University, new students may register for specific

APPLICATION FOR ADMISSION

courses. Instructions and forms for registration and the payment of fees will be mailed to successful applicants with the Letter of Admission.

Newly admitted regular students who do not register in the session to which they have been accepted must re-apply for admission before registering for further courses.

RETURNING REGULAR STUDENTS who have achieved standing in one or more courses of the degree programme in the Division of University Extension need not re-apply for admission, but are required to register for courses in each session in which they wish to study.

SPECIAL STUDENTS

Those part-time students who are not proceeding to a degree of the University of Toronto offered in the Division of University Extension.

Such students may apply to register for individual courses for credit at other universities or other faculties within the University of Toronto.

A candidate clearing a condition may also be a Special Student.

A candidate holding a degree who wishes to strengthen his transcript may apply for admission as a special student.

NEW SPECIAL STUDENTS Applicants for admission as Special Students who have not previously been admitted to the Faculty of Arts and Science and those who have not obtained standing in at least one course offered by the Faculty must submit an application for admission to the Office of Admissions, Simcoe Hall, University of Toronto, Toronto 181, at least six weeks prior to the beginning of the session in which they wish to register. Application forms may be obtained from the Office of Admissions. Instructions and forms for the payment of fees and for registration will be mailed by the Office of Admissions on acceptance of a special student's application.

A ten dollar (\$10.00) non-refundable service fee is required of all applicants except those whose last academic work was done at the University of Toronto. This fee must be remitted by money order or certified cheque (payable to the University of Toronto) and must accompany the completed application.

The following must also accompany the completed application:

- (1) The latest statement of marks must be submitted by University of Toronto students (including returning special students).
- (2) An official transcript must be submitted by all other applicants. Such applicants must arrange for an official transcript of their record to be sent to

the attention of the Special Student Section of the Office of Admissions.

- (3) Candidates for the Type A Certificate of The College of Education and students preparing for graduate studies are to submit a special student application.

RETURNING SPECIAL STUDENTS who have graduated or who are currently registered or who have obtained standing in at least one course in the Faculty of Arts and Science as regular or special students and who wish to take additional courses not for credit towards a degree in the Faculty must submit a "Request for Registration as a Special Student" for each session they wish to attend. Such requests must be submitted on the appropriate form to the Faculty Office, Sidney Smith Hall, 100 St. George Street, Toronto 181, at least three weeks prior to the beginning of the session in which they wish to register. Request forms are available at the offices of College Registrars, the Division of University Extension, and the Faculty Office. Instructions and forms for the payment of fees and for registration will be given to the student or mailed to him by the Faculty Office on acceptance of a request.

Returning special students who have previously failed to obtain standing must re-apply for admission before registering for further courses. Applications for admission should be sent to the Office of Admissions

ADMISSION REQUIREMENTS 1970-71

Candidates applying for admission to the first year of an undergraduate programme will be required to offer standing in at least four Ontario Grade 13 subjects (or their equivalent) comprising at least seven credits. The following Grade 13 subjects are approved for purposes of admission to this University:

One-Credit: Accountancy Practice; Art; Biology; Chemistry; Geography; History; Home Economics; Music; Physics. A candidate may present for credit only one of: Accountancy Practice; Art; Home Economics; Music.

Two-Credit: English; French; German; Greek; Hebrew; Italian; Latin; Mathematics A (alone); Mathematics B (alone); Russian; Spanish.

Three-Credit: Mathematics A and B (two subjects). If both subjects are presented, Mathematics B is given only one credit.

No minimum mark or percentage is prescribed for admission to the University, but because of the pressure of applications and the nature of the university courses

it is likely that an applicant will require a school average above 60% in order to be considered for selection.

MATURE STUDENTS A candidate of mature age (25 years or older on October 1) who has lived in Ontario for a minimum period of one year and is normally resident in Ontario, may request special consideration for admission as a regular student proceeding towards a degree, if he has a good academic record including the required standing in at least one Pre-University Course offered through the Division of University Extension or one Grade 13 subject, and obtains standing in such other tests as may be required. A birth certificate must be submitted by a candidate seeking admission as a mature student.

A candidate wishing to apply for admission as a mature student should consult the Office of Admissions about his eligibility before undertaking one of the Pre-University Courses, since successful completion of a Pre-University Course does not in itself ensure admission. Courses with scientific content such as those offered by the professional faculties often have additional entrance requirements. This information may also be obtained from the Office of Admissions.

ADMISSION REQUIREMENTS TO THE VARIOUS FACULTIES AND SCHOOLS ARE AS FOLLOWS:

FACULTY OF ARTS AND SCIENCE Candidates must present two of English; another language; Mathematics A or B; and additional subjects for a total of seven credits.

Mature students must offer standing of 66% in one Pre-University Course or one Grade 13 subject.

FACULTY OF APPLIED SCIENCE AND ENGINEERING Candidates must present Chemistry; Mathematics A and B; Physics; and an additional subject or subjects comprising two credits.

Mature students must offer standing in three Pre-University Courses or Grade 13 subjects, to include Chemistry; Mathematics; Physics.

THE COLLEGE OF EDUCATION Candidates seeking admission to the Bachelor of Education programme must be graduates of The College of Education in a one year High School Assistant's programme Type B prior to May 1970, and must possess the Permanent High School Assistant's Certificate.

SCHOOL OF NURSING Candidates must present Chemistry; English or History; and additional subjects for a total of seven credits.

Mature students must offer minimum standing of 60% in two Pre-University Courses or Grade 13 subjects, to include one of Biology or Chemistry; one of English or History.

SCHOOL OF PHYSICAL AND HEALTH EDUCATION

Candidates must present one of Chemistry or Physics; one of English or another language; Mathematics A; and an additional subject or subjects comprising two credits.

Mature students will be considered on an individual basis after a personal interview to determine suitability for admission.

ADMISSION REQUIREMENTS 1971-72

Admission to the first year of an undergraduate programme will be offered to candidates from Ontario secondary schools who demonstrate good standing, based upon the following evidence:

- (1) Completion of secondary school studies, including a full year of academic work at the Grade 13 level.
- (2) A recommendation by the secondary school last attended regarding fitness for university studies.
- (3) A complete academic report for the three final years of secondary school.
- (4) Results of standardized tests offered by the Service for Admission to College and University.

Throughout the secondary school years students should study in as many of the following areas as possible: English; French; and other languages; Mathematics; Sciences; Social Studies. Students should also consider carefully what aspects of their projected university work will entail prerequisite study.

Candidates are advised to include in their Grade 13 programme at least two of: English; French or another language; Mathematics; Science. Certain university courses in Mathematics, Science and Languages have Grade 13 prerequisites listed in the calendar.

MATURE STUDENTS Effective summer 1971, a candidate of mature age (twenty-four years of age or older on October 1 of the Winter Session or July 15 of the Summer Session) who has lived in Ontario for a minimum period of one year and is normally a resident of Ontario, may request special consideration for admission if he has obtained high standing in at least one Pre-University Course offered through the Division of University Extension (or an equivalent course) and obtains standing in such other tests as may be required. His previous secondary school record will

also be taken into account. A birth certificate must be submitted by a candidate seeking admission as a mature student.

A candidate wishing to apply for admission as a mature student should consult the Office of Admissions about his eligibility before undertaking one of the Pre-University Courses, since successful completion of a Pre-University Course does not in itself ensure admission. Courses with scientific content such as those offered by the professional faculties often have additional entrance requirements. This information may also be obtained from the Office of Admissions.

ADMISSION REQUIREMENTS TO THE VARIOUS FACULTIES AND SCHOOLS ARE AS FOLLOWS:

FACULTY OF ARTS AND SCIENCE Candidates are advised to include in their Grade 13 programme at least two of: English; French or another language; Mathematics; Science. Certain university courses in Mathematics; Science; and Languages have Grade 13 prerequisites listed in the calendar.

Mature students must offer high standing in at least one Pre-University Course (or an equivalent course).

FACULTY OF APPLIED SCIENCE AND ENGINEERING

Candidates should offer standing in Chemistry; Mathematics A and B; Physics. Candidates lacking one of Chemistry; Mathematics B; or Physics will also be considered.

Mature students must offer high standing in three Pre-University Courses (or their equivalent), to include Chemistry; Mathematics; Physics.

THE COLLEGE OF EDUCATION Candidates seeking admission to the Bachelor of Education programme must be graduates of The College of Education in a one year High School Assistant's programme Type B prior to May 1970, and must possess the Permanent High School Assistant's Certificate.

SCHOOL OF NURSING Candidates must offer standing in Chemistry.

Mature students must offer high standing in two Pre-University Courses (or their equivalent), one of which must be Chemistry.

SCHOOL OF PHYSICAL AND HEALTH EDUCATION

Candidates should offer standing in Chemistry or Physics; Mathematics A. Candidates with standing in two of Biology; Chemistry; Mathematics A; Physics; will also be considered.

Mature students will be considered on an individual basis after a personal interview to determine suitability for admission.

FINAL DATES FOR APPLICATION

Winter Session — August 1, 1970

Summer Evening Session — April 1, 1971

Summer Day Session — May 15, 1971

EQUIVALENT CERTIFICATES Applicants offering certificates other than Ontario Grade 13 are advised to consult the Office of Admissions for specific details on admission requirements.

ADVANCED STANDING CREDIT An undergraduate of another university or of another faculty in this University may be admitted with advanced standing credit on such conditions as may be prescribed. Advanced standing credit is awarded to students who at another university or faculty have taken work which is equivalent in content to work which would have been taken had they been students in the Division of University Extension. Each application is considered individually in terms of the student's previous record and the courses offered by the Division of University Extension.

ENGLISH FACILITY REQUIREMENTS All applicants are required to submit evidence acceptable to the University of Toronto of facility in English. Applicants whose mother tongue is not English may be required to meet an appropriate standard in a recognized English facility test. Information about writing the tests may be obtained from the Office of Admissions.

TRANSFERS Part-time students who wish to transfer to full-time studies are advised to consult the Division of University Extension before May 15, 1971. Part-time students are normally required to complete one academic year before transferring to the next year of full-time studies.

Full-time students who wish to transfer to part-time studies are advised to consult the Registrar of their College or the Secretary of their Faculty.

Since facilities are limited the University cannot guarantee the acceptance of all qualified applicants. Applicants for admission should therefore regard the holding of the published admission requirements as meaning only that they are eligible for consideration for admission to the University.

All applications for admission are to be sent directly to:

Office of Admissions,
Simcoe Hall,
University of Toronto,
Toronto 181, Ontario.

REGISTRATION

All students must register for courses in each session in which they wish to study.

NEW REGULAR STUDENTS must submit a regular student application for admission and provide evidence of meeting the admission requirements before registering for specific courses. Instructions and forms for registration and the payment of fees will be mailed to successful applicants with the Letter of Admission.

RETURNING REGULAR STUDENTS will receive by mail the necessary registration material for each session.

NEW SPECIAL STUDENTS must apply for admission to the session in which they wish to register. Instructions and forms for registration and the payment of fees will be mailed on acceptance of a special student application for admission.

RETURNING SPECIAL STUDENTS must submit a "Request for Re-registration as a Special Student" for each session in which they wish to study. Instructions and forms for registration and the payment of fees will be mailed on acceptance of a request.

ALL STUDENTS should complete the enrolment/registration form as instructed. The enrolment copy (first page) should be returned to:

Degree Courses,
Division of University Extension,
84 Queen's Park,
Toronto 181.

The balance of the form should be sent with fees in full to the Comptroller, 215 Huron Street, University of Toronto, Toronto 181.

Please indicate clearly the course number and the campus on which you intend to take the course.

It is the responsibility of the student to ensure that courses he chooses meet the academic requirements for the degree.

Admit-to-Lectures cards will be issued for the courses selected, but it is the responsibility of each student to choose courses that comply with published regulations. Students should be prepared to present Admit-to-Lectures cards when borrowing books from the Library or writing examinations.

It is of the utmost importance that every detail of the Admit-to-Lectures Card be correct. Discrepancies, if any, should be reported promptly and the card returned for correction.

Changes of address are to be reported immediately, in writing.

FINAL DATES FOR RECEIPT of enrolment copy of form:

Winter Session — August 15, 1970
Summer Evening Session — April 15, 1971
Summer Day Session — June 1, 1971

FINAL DATES FOR REGISTRATION AND PAYMENT OF FEES Students should register before the dates indicated below:

Winter Session — September 10, 1970
Summer Evening Session — May 1, 1971
Summer Day Session — June 18, 1971

Students who register after these dates will be subject to a late registration fee. (See Fees Section, page 16.)

Registrations will not be accepted after September 30, 1970; May 15 or June 30, 1971; as applicable.

Registration and Fees forms, together with cheque for fees in full, payable to the University of Toronto in Canadian funds, should be mailed to the Comptroller, University of Toronto.

Students are held financially responsible for the full fee of all courses in which they enrol unless they notify the Associate Director, Division of University Extension, in writing, within four weeks of the date of registration.

FEES

Winter Session

| | | |
|--|----------------|----------------|
| Academic Fee, each course .. | \$95.00 | |
| Half-course | | \$47.50 |
| Association of Part-Time Under-graduate Students | 2.00 | 2.00 |
| TOTAL | \$97.00 | \$49.50 |

Summer Evening Session

| | | |
|--------------------|----------------|----------------|
| Each course | \$95.00 | |
| Half-course | | \$47.50 |
| Activity fee | 2.00 | 2.00 |
| APUS fee | 2.00 | 2.00 |
| TOTAL | \$99.00 | \$51.50 |

Summer Day Session

| | | |
|--------------------|-----------------|----------------|
| Each course | \$ 95.00 | |
| Half-course | | \$47.50 |
| Activity fee | 5.00 | 5.00 |
| APUS fee | 2.00 | 2.00 |
| TOTAL | \$102.00 | \$54.50 |

Combined Summer Evening and Summer Day Sessions

| | | |
|--------------------------|-----------------|----------------|
| Each course | \$ 95.00 | |
| Half-course | | \$47.50 |
| Total activity fee | 5.00 | 5.00 |
| APUS fee | 2.00 | 2.00 |
| TOTAL | \$102.00 | \$54.50 |

Type A Course

| | | |
|--------------------|-----------------|--|
| Each course | \$115.00 | |
| Activity fee | 5.00 | |
| TOTAL | \$120.00 | |

LATE FEES For registration from September 11 to September 15 inclusive for the Winter Session, May 2 to May 8 inclusive for the Summer Evening Session and June 19 to June 25 inclusive for the Summer Day Session\$10.00

For registration from September 16 to September 30 inclusive for the Winter Session, May 9 to May 15 inclusive for the Summer Evening Session and June 26 to June 30 inclusive for the Summer Day Session \$20.00

For late examination application

A fee of \$1 per day to a maximum of \$20.00

THE ABOVE FEES ARE SUBJECT TO CHANGE

SUPPLEMENTAL EXAMINATION FEE

| | |
|------------------------------|---------|
| one course | \$10.00 |
| each additional course | \$ 5.00 |

OUTSIDE CENTRE EXAMINATION FEE

| | |
|------------------------------|---------|
| one course | \$10.00 |
| each additional course | \$ 5.00 |

(These fees are in addition to any supplemental fees that may be applicable.)

FEE (per course) TO RE-CHECK MARKS \$ 5.00

(This fee will be refunded if an error in reporting the mark is detected.)

FEE FOR TRANSCRIPT OF RECORD \$ 1.00

for each additional copy ordered at the same time \$ 0.25

Transcript of record A student who requires proof that he has obtained standing in one or more courses in an Extension degree programme should apply for an official transcript of his record. Standard request forms may be obtained from the Associate Director, Division of University Extension.

FINANCIAL ASSISTANCE

Applications are to be sent to the Secretary, Division of University Extension, prior to August 15 for the Winter Session and to May 1 for the Summer Session.

THE DIVISION OF UNIVERSITY EXTENSION ALUMNI AWARD The Division of University Extension Degree Section Alumni will make an annual contribution to assist degree students of the Division.

Each award to the value of \$40.00 will be granted to students in the Faculty of Arts and Science who have completed at least four first year subjects in the Division of University Extension, who obtained a minimum overall average of 66% and who have demonstrated the need for financial assistance. The award is available only to students who have not received other financial assistance in the session in which the award is made. Normally one award will be made in the Winter Session and one award in the Summer Session.

THE WILLIAM JAMES DUNLOP BURSARY As a tribute to the long services of the late Dr. W. J. Dunlop, who for thirty years was Director of the Division of University Extension, and in appreciation of his leadership in education in Ontario, colleagues and associates, on his retirement in June 1951, established a fund in the Faculty of Arts and Science to be known as the William James Dunlop Bursary.

The Bursary, of the value of \$100.00 is available to elementary school teachers who have credit for at least two subjects in the Pass Course for Teachers or the General Arts Course as students of this Division. Preference will be given to students from Northern and Northwestern Ontario. To be eligible, a student must enrol for two or more subjects in the Summer Session immediately following the award. This Bursary may be held only once by any student. Application must be made by April 15.

IFAC/IFIP AWARDS The International Federation on Automatic Control and the International Federation on Information Processing in conjunction with the Division of University Extension have offered

these awards to students who have completed the First Year Programme in Engineering through the Division of University Extension, and who enter second year in full-time study as candidates for the degree of Bachelor of Applied Science. The awards will be given on the basis of academic standing (a minimum overall 66% average) and financial need. The award is of the approximate value of the tuition for one academic year.

It is expected that the first award(s) under these conditions will be made in 1971.

INCO BURSARIES For several years the International Nickel Company of Canada has offered a number of bursaries to secondary school teachers who have degrees, but require further work in Mathematics and Science. The bursaries are usually offered for the Summer Session only, however, there will be Inco Bursaries available for the coming Winter Session 1970. The amount of each bursary is \$250.00.

In April, applications and details are mailed to all high schools in Ontario. Applications for the additional bursaries that are available for the Winter Session 1970 must be received by the Secretary, Division of University Extension, before August 15.

THE HARRIET M. LATTER BURSARY The Harriet M. Latter Bursary, in memory of the first Secretary of the Division of University Extension, of the value of approximately \$200.00, is available annually to a teacher enrolled in the Faculty of Arts and Science who has completed, with reasonably good standing, at least four subjects in that Faculty as a student of this Division, on the recommendation of the Director, Division of University Extension. This Bursary will be awarded to a student wishing to enrol in University College or in the School of Graduate Studies. Applications must be received before September 15.

UNIVERSITY WOMEN'S CLUB OF ETOBICOKE BURSARIES Through the generosity of the University Women's Club of Etobicoke, four bursaries valued at \$50.00 each will be awarded in 1970-71 Winter Session and the 1971 Summer Session. (Two will be awarded each session.) The bursaries will be awarded on the recommendation of the Director, Division of University Extension, to women students who have completed at least two subjects in a degree programme in the Division of University Extension with a satisfactory average and who show evidence of financial need. Applications must be received before September 15 for the Winter Session and May 1 for the Summer Session.

THE VARSITY FUND Through the generosity of the Varsity Fund, six bursaries of the value of \$200.00 each will be available to students who have successfully completed at least two courses in the Division of University Extension and who are proceeding towards a degree at the University of Toronto. The awards will be given on the basis of academic standing (a minimum overall 66% average) and financial need. Awards will be made in each of the Winter, Summer Evening and Summer Day Sessions. This award may not be offered annually.

Further information and application forms for the above Bursaries are available from the Director, Division of University Extension, 84 Queen's Park, Toronto 181.

ASSOCIATION OF PART-TIME UNDERGRADUATE STUDENTS (APUS)

In the spring of 1968, a questionnaire administered to the degree students registered in the Division of University Extension revealed overwhelming support for an association of part-time students. A steering committee worked for many months and in September of 1968 the Association was officially sanctioned by the Caput.

PURPOSE The purpose of APUS is to act as a communication link between part-time degree students and the University community, and between the students themselves; to make "equality of educational opportunity" a reality and not a political phrase.

STRUCTURE Every class that has part-time students enrolled in it is entitled to one or more Class Representatives, who then constitute the Assembly of Representatives. This body elects an executive of four officers and eight directors, with a minimum of one representative from Scarborough College and one from Erindale College.

APUS FEE Since September 1969 a fee of \$2.00 per Session to a maximum of \$4.00 (in an academic year) has been levied to cover the cost of disseminating information and acting on behalf of the organization. Your two dollar APUS fee covers the cost of a Student Handbook containing important information such as library locations, hours, telephone numbers, food facilities, study hints and university services on all three campuses. A newsletter, VOICE, is presently produced every two weeks, which we hope will be issued on a weekly basis. The student office at 47 Queen's Park is staffed mornings, Monday through Friday, by a secretary employed on your behalf to type the numerous briefs, letters and paper-work which is essential to the organization. In addition, our girl Friday answers the telephone, relays messages for and to the executive and answers numerous queries from current and future students. Efforts are made to man the telephone at all times with the help of student volunteers, but we have to write exams too, so please call again if you don't get a reply. Orientation programs and informal social gatherings have also been sponsored by your Association.

ACTION Action, as of April 1970 when this calendar went to print, included representation for part-time students on the following:

- Faculty Council and the Allen Committee (concerned with academic rules governing the New Programme)
- New Library Council governing library policy
- Campbell Committee on Disciplinary Procedures
- Presidential Advisory Committee on the social responsibilities of the university concerned with the action and extent of university welfare commitments
- The University-Wide Committee (C.U.G.) which will make recommendations for the top governing structure of the university
- Summer Activity Committee
- Presidential Advisory Committee on Extension.

In addition, we have student representatives on Student-Faculty committees in Departments such as Psychology, English, French, Environmental Studies, Spanish, Political Economy and Classics.

As students take an increasing role in university affairs, it becomes vital that the views of part-time students are expressed or we shall be governed by the policies set forth by full-time students.

At a provincial level, in response to our brief, the Committee on Student Awards (Government grants and loans) has acknowledged the need for financial aid for part-time students and representation on the Student Awards Committee.

Research necessary in the preparation of briefs has revealed such startling facts as the discrepancy between the \$60.00 per capita scholarship fund for full-time students and the 32c per capita fund for part-time students, not of the teaching profession.

FUTURE We shall continue to press for a better deal for part-time students. YOUR comments, questions, suggestions . . . YOUR voice is vital to the success of your Association. It can only be what you make it. Call us at 964-1535, write or drop in at Room 13, 47 Queen's Park.

Joyce Denyer
President, APUS

STUDENT SERVICES

ACADEMIC COUNSELLING Students entering the University for the first time should meet with an academic counsellor in the Division of University Extension to discuss their academic programme. Counselling hours are arranged to meet the requirements of each student and are held at 84 Queen's Park. For counselling appointments, telephone 928-2405.

WRITING LABORATORY The Writing Laboratory is a service designed to help students write more effectively. The staff of the Writing Laboratory will work with individual students as editorial consultants, analyzing their written work to help them overcome problems in the organization of ideas, sentence structure, word choice and the documentation of research sources. With the exception of an introductory lecture, the work of the Writing Laboratory is conducted in individual interviews on the basis of work in progress. Appointments for interviews should be arranged by telephoning 928-8600.

BOOKSTORE FACILITIES

Winter Session

Books may be purchased at the Bookroom and Textbook Store on the St. George Campus, the Scarborough College Bookstore and the Erindale College Bookstore. In addition to the regular hours of service from 8:45 A.M.-5:00 P.M. Monday-Friday, the bookstores will be open in the evening as follows:

St. George Campus September 21-October 3
Monday-Thursday: 8:30 A.M.-9:00 P.M.
Friday: 8:30 A.M.-5:00 P.M.
Saturday, September 26 and Saturday, October 3: 11:00 A.M.-3:00 P.M.

Scarborough and Erindale Campuses

Evening hours will be arranged as required.

Summer Session

In addition to the regular service during the day, the bookstores will be open on evenings as required. Details on Summer Evening and Summer Day Session hours will be published in the *Summer Students Handbook*.

STUDENT SERVICES

LANGUAGE LABORATORY The Language Laboratory is equipped so that students may work on perfecting their pronunciation in various languages through the use of recorded material, with self correction furnished by the listen-playback method, plus extra correction by experienced lab instructors. Hours of operation for the Language Laboratory will be announced in class at the beginning of each session.

LIBRARY FACILITIES For complete details on library services, please consult *A Student's Guide to the University Library* which is available on request from the Central Library. Access to a substantial collection of books is essential to students enrolled in a degree programme. To familiarize students with the library system and to assist them to make the most efficient use of resources available, **LIBRARY ORIENTATION CLASSES** will be held during the first few weeks of lectures each session at the St. George, Scarborough and Erindale Campuses. Announcements regarding times and dates will be distributed at the beginning of each session.

1. The University Library provides a special collection of books for Extension students, registered in Degree Courses and some Certificate Courses. These books have been selected from recommended reading lists for undergraduates and are housed at 47 Queen's Park Crescent for the exclusive use of Extension students who may borrow them for a period of one week.
2. Books from the general reserve collection in the Wallace Room (Humanities and Social Sciences) and in the Science and Medicine Department may be borrowed for overnight, three days or one week, unless otherwise restricted.
3. Books from the Central Library stacks may also be borrowed by Extension students for a period of one week, unless otherwise restricted.
4. The Engineering Library will be available to Extension students enrolled in the First Year Programme in Engineering.
5. The College of Education Library will be available to Extension students in the Bachelor of Education Programme.

NOTE: Part-time students have access to Library facilities at the St. George, Scarborough and Erindale Campuses.

HOURS OF SERVICE

Winter Session

St. George Campus

Central Library

Monday-Friday: 8.30 A.M.-Midnight.

Saturday: 9:00 A.M.-5:00 P.M.

Sunday: 1:00 P.M.-10:00 P.M.

47 Queen's Park

Monday-Thursday: 12:30 Noon-11:00 P.M.

Friday: 12:30 Noon-6:00 P.M.

Saturday 9:00 A.M.-5:00 P.M.

Sunday: 1:00 P.M.-10:00 P.M.

Scarborough Campus

Monday-Thursday: 9:00 A.M.-Midnight.

Friday: 9:00 A.M.-5:00 P.M.

Saturday: 10:00 A.M.-4:00 P.M.

Sunday: 1:00 P.M.-10:00 P.M.

Erindale Campus

Monday-Thursday: 9:00 A.M.-10:00 P.M.

Friday: 9:00 A.M.-5:00 P.M.

Saturday: 10:00 A.M.-5:00 P.M.

Summer Session

Students registering for the Summer Evening or Summer Day Sessions should consult the *Summer Students Handbook* for information regarding library hours and services available during the Summer Session.

EFFECTIVE READING SEMINAR The ability to read effectively is essential in university work. To assist adult students to equip themselves with effective reading skills the Division of University Extension offers an Effective Reading Seminar at a reduced fee of \$10.00 for persons who are registered in degree (part-time) programmes. To qualify for this seminar registrants must enrol concurrently in degree courses or have been enrolled in such a course during the previous academic year(s). On their application forms applicants must state the course in which they were registered to make them eligible for registration at the reduced fee.

Registration Fee:

\$10.00 (Extension students)

\$75.00 (other students)

NOTE: No refund after course has begun.

RECREATION AND ATHLETICS**Winter Session**

Women students proceeding to the degree may take out membership in the activities of the Benson Building (Women's Athletic Building). Apply at the office of the Benson Building. The fee from September to April 30 is \$15.00, and from May 1 to August 31 is \$10.00. Locker and towel service is available at a small fee. For monthly rates and additional information contact the office of the Benson Building.

Men students may join Hart House as special undergraduate members at a fee of \$30.00. This entitles them to join the Glee Club, Camera Club, art classes and many other special interest groups. Apply for membership at the Graduate Office on the main floor. A limited number of athletic memberships are available on application at the Athletic Office at an additional fee of \$17.00 for the academic session (Fee \$15.00, towel service \$2.00).

Summer Session

Consult the *Summer Students Handbook* for special arrangements for Summer Evening and Summer Day Session students.

DINING FACILITIES**Winter Session**

Dining facilities are available for students who wish to come to classes directly from their place of employment. On the St. George Campus, students may use the following facilities: New College Dining Hall, Hart House Great Hall, Women's Union, University College Refectory. The Cafeterias at Scarborough and Erindale Colleges will also provide food service in the evenings.

Summer Session

Details for Summer Evening and Summer Day Session students will be published in the *Summer Students Handbook*.

PARKING REGULATIONS Students are strongly urged to use public transportation to the St. George Campus, as parking is limited on or near the campus.

ACCOMMODATION**Residences****WOMEN**

Loretto College — Dean of Residence
St. Hilda's College — Bursar, Trinity College
St. Joseph's College — Dean of Residence
University College — Dean of Women
Victoria College — Bursar
Wilson Hall — Dean of Women

MEN

Devonshire House — Secretary
Massey College — Bursar
St. Michael's College — Director of Sum. Res.
Trinity College — Bursar
University College — Dean of Men
Victoria University — Bursar
Wetmore Hall — Dean of Students

Housing Service

The University of Toronto operates a listing service of off-campus accommodation for students and staff. Enquiries regarding rooms, flats, apartments and houses should be directed to:

Housing Service
49 St. George St.
Toronto 181, Ont.

HOURS: Mon.-Fri. 9:00 A.M.-4:30 P.M.

**Campus Co-Operative Residence
Rochdale College**

The Campus Co-operative Residence, Inc., offers certain housing accommodation for undergraduate and graduate students. Since the University of Toronto has no official connections with the Campus Co-operative Residence, Inc., enquiries about accommodation available through that organization should be addressed directly to:

Campus Co-operative Residence, Inc.
341 Bloor St. W.
Toronto 181, Ont.

SUMMER ACTIVITIES From the beginning of the Summer Day Session in July, a variety of extra-curricular activities and services will be offered for students registered in Summer Evening or Summer Day Sessions. Consult the *Summer Students Handbook*, as well as campus bulletin boards, for complete details on activities and services available during the Summer Session.

STUDENT SERVICES

FALCONER HALL ANNEX, 47 QUEEN'S PARK CRESCENT In addition to the administrative offices and lecture rooms at 84 Queen's Park, other facilities are provided at 47 Queen's Park Crescent.

This location provides an extension to the Wallace Room which houses the Extension library, a reading room and a lounge for adult students.

Students in Degree, Diploma and Certificate Courses may avail themselves of the facilities at 47 Queen's Park Crescent.

During the Winter Session the building is open from 9:00 A.M. to 11:00 P.M. Monday to Thursday, 9:00 A.M. to 6:00 P.M. Friday, 9:00 A.M. to 5:00 P.M. Saturday and 1:00 P.M. to 10:00 P.M. Sunday.

PRE-UNIVERSITY COURSES

PURPOSE The Division offers five Pre-University Courses: Chemistry, English, History, Mathematics, Physics. They are similar to Grade 13 courses in these subjects but require the type of performance which will be expected of applicants in the first year of University study in Arts and Science.

These courses are designed to assist persons who wish to become eligible as "mature" students for admission to the University of Toronto. They may also serve as refresher courses for persons who desire preparation for more advanced courses. In addition, the mathematics course is intended to assist students whose graduate study involves the use of statistics and calculus and who feel that they need a stronger foundation in mathematics. For further information call 928-2405.

DIPLOMA COURSE IN TRANSLATION

PURPOSE FRENCH - ENGLISH - FRENCH The University of Toronto responded to the growing demand for competent translators by introducing a Diploma Course in Translation in September of 1969. The programme is designed for both French and English speaking students and provides a formal training for aspiring translators. The diploma will provide access to membership in the professional associations of Canadian interpreters and translators.

The programme is designed to achieve a close relationship between the theoretical and practical applications of translating. While the stress is on comparative linguistics and stylistics, students will also learn to express themselves in the working language of translation through creative writing.

ADMISSION REQUIREMENTS Normally, applicants must hold a B.A. degree from a North American University or have equivalent academic qualifications. In determining such equivalence, recognition will be given to proficiency in French and English and professional experience in translation.

In addition, candidates for admission will be required to pass an entrance examination which will admit them to a three-year programme. For those who do not satisfy the requirements of this examination, but who show promise in translating, a one-year course of instruction is provided which is designed to upgrade and prepare students for admission to the three-year diploma programme. For further information call 928-2405.

DEGREE PROGRAMMES

The Division of University Extension of the University of Toronto offers evening and part-time courses leading to the degree of Bachelor of Arts, Bachelor of Science, Bachelor of Education, Bachelor of Science in Nursing; and the First Year courses of the Bachelor of Applied Science in Engineering and the Bachelor of Physical and Health Education programmes.

To facilitate understanding of the following pages the definitions of Subject and Course follow:

- (1) The Subject is the discipline, e.g., English.
- (2) The Course is the specific area within the Subject which is to be studied, e.g. ENG 100 or ENG 200, etc.

PROGRAMME OF STUDIES The use of the terms "100 level", "200 level", etc., on the following pages is merely a convenient way of indicating the number of courses an Extension student is required to complete in order to obtain the equivalent number of courses a full-time student takes in each year of attendance in day classes. A student may enrol in a maximum of five courses in any one year (September to August inclusive). A student may take a maximum of three courses in the Winter Session; two courses in the Summer

Evening Session, Summer Day Session, or Summer Evening and Summer Day Sessions combined.

ATTENDANCE IN DAY CLASSES Normally students attending day classes during the Winter Session must be registered in full-time studies. Students who proceed towards their degree on a part-time basis during the Winter Session attend evening classes. However, upon petition, Extension students who wish to take one or two subjects in day classes during a Winter Session may be granted permission subject to limitation of enrolment and provided that they give a satisfactory reason for their request. The permissible maximum of three subjects in one session may not be exceeded.

The requirements and regulations governing the specific degree programmes are contained in the following pages. The course descriptions and timetables are found on pages 87-136. Students are advised to study this calendar carefully since they are solely responsible for choosing courses which meet the various degree requirements and for following all the regulations governing their academic conduct.

THE PROGRAMME IN ARTS AND SCIENCE

The curriculum in Arts and Science is based on the principle that all students should be allowed access equally to academic resources of the highest quality and the greatest range, so that they can investigate many fields of learning in developing and fulfilling their own particular intellectual interests and abilities. In the First Year, the curriculum encourages a broad investigation of subjects by offering almost unrestricted choice of five of the courses available to first-year students. This freedom allows the student to pursue his own inclinations without necessarily committing himself to any specified long term programme, while at the same time leaving open many possibilities for specialized study in higher years. Since the choice of courses and combinations of courses is largely left to the student, each in effect may follow an individual academic programme from year to year.

The building of such programmes in each year and over the three or four years of study will involve, on the part of a student, not only a prior questioning of personal ambition, values and capabilities — in short, a measure of self-knowledge — but also a considerable investigation of the details in the curriculum of courses offered in the Faculty.

There is a great variety of subjects from which to choose, and of courses within subjects. Once having settled upon an area of interest the next decision will have to do with the degree of intensity or specialization with which the subject will be studied. Then follows the selection of the actual courses to be taken. At each stage in this process consideration will be given to the range of one's interests and, through that, to the relationships between subjects and thus the interconnections between courses.

Ideally, a programme of study should not just be a collection of courses but, at least potentially, an organic unity. One programme may be completely diversified over five or six subjects in each year and a much larger number in three or four years. Another may be highly concentrated in one subject to the exclusion of all but a few courses in closely related fields. The majority will range between these extremes, taking well-planned combinations of subjects and carefully chosen courses.

Some individual courses are themselves a combination

of subjects, and a new series of these called "Interdisciplinary Courses" is being developed by the Faculty. Here the subjects and the instructors who represent them mutually support one another in the pattern created for the particular course. While in general interests tend to lean towards one or other of the humanities, social sciences or natural sciences, this need not be so, and contemporary developments in learning and research are drawing these areas closer together in many cases. In the light of this fact, some account of these areas is given below, and elsewhere some examples of the kinds of programme that can be created.

THE HUMANITIES

In general, the Humanities are concerned with the historical development and contemporary aspects of human experience. They examine and evaluate the ever-present relations of man to man, man to society, man to God, and man to himself. Specifically, different disciplines within the Humanities deal with language and culture, with intellectual, political, social, economic, religious and cultural history, and with the arts; in each of these areas there is a concern with man's powers of making and using concepts, and of reflecting on his own nature and condition.

In many cases, humanistic interests overlap the interests of the social scientist, who is dealing with the same phenomena from a different point of view and by other methods. The natural sciences, while their materials and methods are clearly distinguishable from those of the Humanities, also have an intimate bearing on humanistic problems. To attain a broad awareness of the human condition, including such vital matters as the determination of solutions and the formation of policies, the student who wishes to choose a majority of courses in the Humanities would be wise to select some courses in the Social and Natural Sciences.

The disciplines generally considered, at the University of Toronto, to fall within the Humanities include Classical Studies, East Asian Studies, English, Fine Art, French, German, History, Islamic Studies, Italian and Hispanic Studies, Religious Studies, and Slavic Languages and Literatures. (Students should realize, however, that some of these disciplines, such as History, Linguistics, and studies of particular areas and cultures, can also be considered as Social Sciences, and that Mathematics has traditionally been regarded as an integral part of humanistic education.)

As indicated above, each of the disciplines mentioned offers a programme for students desiring to specialize.

The curriculum offers wide opportunities, also, to those who wish to concentrate their studies, but who either have not yet decided to specialize, or do not wish to specialize.

THE SOCIAL SCIENCES

The Social Sciences are defined by their subject matter and by their methods. Their basic subject is the interaction of human beings in association with one another; their basic methods are analytic and descriptive attempts to understand and predict behaviour. Individual disciplines range widely from historical studies of civilizations, through comparative analyses of societies, to specific examinations of small groups in particular situations. The relation of man to his environment is integral to many subjects; consequently social scientists are concerned with such matters as urban life, communications, ecology, and national resources, to name but a few. In these cases and many others, there are close connections among the Social Sciences, the Natural Sciences and Mathematics, and the Humanities: for instance, a student interested in the economic aspects of ecology will find biological studies essential to full understanding of the problems; a student of communications from a sociological viewpoint will benefit from a study of language and linguistics; a student working towards a complete picture of national resources policy will need to be aware of scientific disciplines. In defining his special interest, then, each student should examine the related areas, both within and without the Social Sciences, and seek counselling in choosing his programme.

The disciplines generally considered at the University of Toronto to fall within the Social Sciences include Anthropology, Geography, Political Economy (comprising Commerce, Economics, and Political Science),

Psychology, and Sociology. As indicated above, however, many other disciplines are closely related. There are obvious links in content and approach with such subjects in the Humanities as History, Philosophy, Linguistics, Religious Studies, with those disciplines dealing with the culture of civilizations, such as East Asian Studies, and Islamic Studies, and with the language departments. On the other hand, there are equally obvious links with Mathematics and Computer Science, which supply essential methodological tools, and with the Natural Sciences (certain investigations in Psychology, for example, overlapping those in Biology). It should be noted that programmes in Psychology and in physical Geography can qualify for the B.Sc. degree.

THE NATURAL SCIENCES AND MATHEMATICS

Science, the study of natural phenomena, embraces a wide range of subjects that form a continuous spectrum spreading from Mathematics, Physics, and Astronomy, through Chemistry and Biochemistry, to the Biological or Life Sciences. The science departments of the Faculty offer courses in almost every band of this broad spectrum; these are designed not only for those students who seek to specialize in a particular science or group of sciences, but also for those students who are interested in a less intensive study of a wider range of sciences, and for those whose primary interests lie in the Humanities and Social Sciences. For each of these groups there is opportunity to discover what excites the specialist to follow a scientific discipline, what part science plays in the contemporary world, how it contributes to our welfare and modes of living and thinking, and what problems it raises and attempts to solve for this and succeeding generations.

The student who seeks a broad programme of many sciences, or who wishes to specialize in a single one

or in an interdisciplinary combination, should be aware of the interdependence of the sciences. All use Mathematics as an indispensable tool in developing logical frameworks of understanding from experimental facts, and in devising experimental tests of hypotheses. The specialists in Physics, Astronomy, and Physical Chemistry will require a greater breadth of competence in Mathematics than will specialists in the Biological or Life Sciences, but in these latter areas there are exciting opportunities for the application of Mathematics to such fields as Ecology. A glance at the section on Programmes of Study will show how Mathematics can be combined with other sciences; all such combinations are active fields of discovery today. Even in the most intensely mathematical of the sciences, it should be noted, there are differences of degree, depending on the student's inclination to theoretical or experimental aspects; certainly the student aiming at theory should take as much Mathematics as possible, without neglecting, of course, the basic science to which he wishes to apply mathematical skills.

Geology and the Life Sciences are regarded as "derivative sciences," in that their investigations of the earth and the organisms on it are built on a basic foundation of Mathematics, Physics, and Chemistry. Preparation for these fields should begin, therefore, with a programme that includes Calculus, Chemistry, and Physics; those interested in the Life Sciences (i.e., Biochemistry, Biology, Botany, Microbiology, Physiology, and Zoology) should add BIO 100 or 120. Such a broad first-year programme will grant the student entry into science programmes of all degrees of speciality or generality in the Second Year.

Students seeking a one- or two-year preparation for professional work in other Faculties such as Dentistry or Medicine are advised to consult those Faculties as to their requirements.

Students who do not seek to specialize intensively may combine many science courses in various ways to suit their interests, both with reference to the subject matter and the depth to which it is probed. Those intending to take a majority of courses in the Sciences should note that without Mathematics A in Grade 13 their choice is severely limited.

THE FOLLOWING ESSAYS ARE INCLUDED FOR THE INFORMATION OF STUDENTS. IT IS NATURALLY IMPOSSIBLE TO OFFER COMPREHENSIVE PROGRAMMES IN ALL THE AREAS DESCRIBED, HOWEVER IT IS THE AIM OF THE DIVISION OF UNIVERSITY EXTENSION TO MAKE AVAILABLE TO ITS STUDENTS AS CHALLENGING AND AS INTERESTING A CHOICE AS RESOURCES PERMIT.

DEPARTMENTS OF THE FACULTY AND SUBJECTS OF INSTRUCTION

ANTHROPOLOGY

Chairman of Department: Professor D. R. Hughes
Undergraduate Secretary: Professor R. B. Drewitt

Departmental Office: 928-3295

Anthropology, in the most general sense, is concerned with man's development throughout the world. Within the spectrum of the social sciences, Anthropology tends to focus on human societies that have not been

or are just beginning to be influenced, directly or indirectly, by industrialism. This very broad interest has led to the division of the discipline into distinctive areas of research.

ARCHAEOLOGY

Archaeology is the study of surviving changes in the material world that are the result of the action of man. Archaeologists excavate sites, found by survey techniques, that contain remains of human activity. From the materials uncovered, classes of artifacts are established, based on analysis of form and function. The spatial and temporal relations of artifacts from a number of sites are studied. From such studies archaeologists draw conclusions about the nature of social groups, adaptations to environment, and spatial and temporal relations of the groups involved. Two important features of archaeological work are the careful observation of stratigraphy uncovered in excavation and the increasing use of highly accurate dating techniques based on physical, chemical and biological characteristics of materials found. General topics include: the origins and dispersal of early tool traditions; adaptations to cold conditions in the Ice Age; the peopling of the New World; the development of agriculture and of civilizations in the Old and New Worlds.

LINGUISTIC ANTHROPOLOGY

Linguistics is the scientific study of language. In anthropological linguistics certain aspects of language study are emphasized. One important aspect is the relation of language to culture. Here language is studied as the primary means of communication in human life. In and through language members of a community interact, and the cultural facts of a society are manifested. It plays a critical role in the transmission of culture through time.

Another important aspect of Anthropological Linguistics is language classification. Typological classification deals with the grouping of languages according to their structural characteristics. Comparative-historical classification groups languages which have evolved from a common origin (such as French, Spanish, and Roumanian from earlier Latin). Dialectology deals with the variation of language over an area. Such studies are valuable for the light they shed on pre-history. As anthropologists are often interested in the lesser known peoples of the world, linguistic field methods have come to provide techniques for the analysis of languages which have not previously been studied.

PHYSICAL ANTHROPOLOGY

Physical Anthropology and human biology are concerned with the study of the biological evolution of man and the spectrum of human variability seen in living populations of mankind. To study the evolution of man, one studies the evolution of his primate relatives, as well as the fossil remains of earlier human populations. The study of living populations, or races of people, is accomplished through measurements of various kinds, e.g., of body proportions, of the colour of hair, eyes and skin, of blood group frequencies, and the analysis of these data. Statistical techniques are used to assess the biological affinities of populations, and to help in tracing their migrations. Basic to the study of Physical Anthropology is an understanding of the laws of human genetics, and an understanding of man's ecological background. Some basic concepts of the subject are natural selection and human adaptation, forces that have operated during the course of some two million years of human evolution to produce the polytypic species that is mankind today.

SOCIAL AND CULTURAL ANTHROPOLOGY

Social Anthropology is the study of the social life of man. Traditionally social anthropologists have used small scale societies, usually non-literate and isolated groups because it was easier to observe the total social life of a society. The range of topics includes political, economic and ritual behaviour as well as social sanctions including gossip. Although this model of social as opposed to individual behaviour was developed in small-scale societies, it is by no means limited to them. Recently Social Anthropology has become interested in society in general. The discipline is utilized in modern western society for the study of ethnic minorities and other units such as in factories, street-corner cliques, and political factions. The method is relevant for social analysis where the depth and intensity of small group interaction is part of the general social process. Moreover, institutions and models of social behaviour can be compared cross-culturally to establish more general concepts and trends.

Careers in Anthropology usually emphasize either theoretical, academic aspects, or practical applications of the discipline. Researchers in Anthropology are generally connected with a university or museum. Courses in Anthropology are taught at the university or college level. Most institutions involved in teaching

and research require professional anthropologists who have obtained the Ph.D. degree. Examples of the practical applications of Anthropology range from work on problems concerning the contact of groups with varied social and cultural backgrounds, to preservation of archaeological material in connection with development and expansion of regional recreation facilities. Where Anthropology is able to provide a unique contribution in practical applications, training at least to the M.A. level is required.

As a science emphasizing comparative study of social and cultural variation throughout the world, and man's biological background, Anthropology offers a unique grounding for interests and studies in the Humanities, other Social Sciences, Psychology, Biological and Medical Sciences, and Geography.

There are two courses in Anthropology offered in the First Year and five courses offered in the Second Year. There are no pre-requisites for any of these, nor is there a defined programme for a student who seeks to specialize in Anthropology in the Second Year; however some second-year courses will be pre-requisites to courses in the Third and Fourth years. For instance the Introduction to General Linguistics in the Second Year is a pre-requisite for several of the advanced courses in Anthropological Linguistics. There are similar prerequisites in the other divisions of Anthropology.

In the First and Second years, and later years as well, courses in Anthropology can be fruitfully combined with courses in a wide variety of other disciplines. A few examples should make this breadth clear. A student interested in Anthropological Linguistics would find language courses in many departments relevant. A student of Physical Anthropology could strengthen his area of interest with courses in Zoology and Anatomy. An interest in Social Anthropology could be complemented with a variety of courses in Sociology. Finally the budding archaeologist might find courses in Geology important if his main interest were early man. Because of the wide scope of Anthropology, courses cannot be narrowly prescribed. Students interested in concentrating their studies in this field must be prepared to consult with Faculty advisers of the department to insure that they are following a programme suited to their interests.

Admission to Graduate Studies in Anthropology in this Department is possible with or without undergraduate specialization in Anthropology, although students who have not had extensive undergraduate training in Anthropology are expected to make up deficiencies; this involves at least an extra year of work at the graduate level.

ASTRONOMY

Chairman of Department: Professor D. A. MacRae
Undergraduate Secretary: Professor E. R. Seaquist

Departmental Office: 928-3150

In all of time on all the planets
Of all the galaxies in space,
What civilizations have arisen,
Looked into the night,
Seen what we see,
Asked the questions that we ask?
"Universe" (National Film Board)

The subject has sometimes been regarded as nugatory but the modern view is quite the contrary. In all ages Astronomy has been in the background of man's thought. Its ideas pervade our literature. Trade and commerce have depended on it. And now in our own day Astronomy has become, unexpectedly a matter of everyday concern. Its breadth in space and time and its concern both with the very large and the very small make a course in Astronomy an attractive component of any programme.

Several courses are offered to suit persons of diverse background and depth of interest. Two of the beginning courses do not require special knowledge of mathematics or the sciences. We are not concerned with formulae and detailed calculations, but rather with what the student can see with his unaided eye or with a telescope. Astronomical phenomena can be related to occurrences on earth and explained by familiar laws of physics. Extreme conditions, though unusual, need not be mysterious.

AST 100 is presented in such a way that students can learn about the universe we dwell in even though they do not have a scientific bent. It can profitably be taken in either First or Second Year since no other courses are prerequisites. The course is largely descriptive and covers the full range of astronomical topics. AST 200F is a half-course also designed for those students whose principal interests are non-scientific. It caters to the needs of students in the second or higher years whose programme in other areas requires them to limit themselves to a half-course.

Given in the first term only, the lectures attempt to present up-to-date topics and to answer often-asked questions.

A third course is AST 220 offered in Second Year. It is designed especially for someone who is attracted to science and who has taken, in his First Year, one of

the first-year Physics courses. This will enable him to gain a deeper insight into the physical nature of astronomical bodies and a greater appreciation of the unusual conditions which are revealed when we study them. The tools and methods used by the astronomer are also better understood. His knowledge of Astronomy will be useful in later studies of Physics, the Geosciences and even Life Sciences.

In all three courses it is an objective to provide for personal involvement by the student. Primarily this is done by the use of telescopes on the roof-top observatory of the McLennan Physical Laboratories, by day as well as by night. A visit to the David Dunlap Observatory is also arranged. The McLaughlin Planetarium is one of the best ways in which concepts can be presented in a realistic fashion. Motion pictures, slides and demonstrations are used extensively.

Public interest in Astronomy is increasing and for those who are planning a career in teaching it is becoming more and more necessary to be familiar with this area of science. The universe has always excited the imagination of students in elementary schools.

Now, Astronomy is receiving more emphasis at the secondary school level than it did only a few years ago. In fact, a number of courses in Astronomy are accepted by The College of Education as giving credit for Physics towards the entrance requirements for a teaching certificate programme at the College. Students should consult The College of Education for details.

For those students who feel that they might follow a career in Astronomy and Astrophysics or a related discipline, a specialist programme in Astronomy has been prepared in consultation with the Department of Physics. The programme is identical to the Physics Specialist Programme in the Second Year, and is followed in the Third and Fourth years by four courses in Astronomy (of which two are half-courses) and certain courses in Physics and Mathematics. There is room for optional courses in related disciplines such as Chemistry or Geology. The aim of the Astronomy Specialist Programme is to provide for the student a proper balance between Astronomy and the other physical sciences which play important roles in astronomical research.

BOTANY

Chairman of Department: Professor N. P. Badenhuizen

Undergraduate Secretary: Professor E. R. Luck-Allen

Departmental Office: 928-3537

Botany has been regarded traditionally as the biological science that is solely concerned with the study of the plant kingdom. Modern Botany, however, is concerned with the broader field of the nature of life, and deals with fundamental biological processes, whether common to all living things or peculiar to plants. It both contributes to and uses Biochemistry and Biophysics in studies of life processes at the molecular level. It is also concerned with the integration of physical and chemical processes in the structure, function, organization and development of cells and whole plants, as well as biological communities. It includes plant life in all its forms: seed-bearing plants, ferns, mosses, algae, fungi, bacteria, viruses; and it deals with all aspects of their life as individuals and in relation to the environment.

Better knowledge of plants is of the utmost importance in efforts to solve urgent problems facing mankind, such as the production of enough food, and protection against pollution of air and water. Man's food and shelter, the oxygen he breathes, the condition of his environment and the fate of his civilization depend on maintaining a proper balance in the plant cover of the earth. The efforts of botanists are therefore of the greatest importance to the welfare of mankind.

Careers for botanists are mainly in teaching and research. These aspects may be combined in universities, or pursued separately, the one in schools, the other in government institutions or museums, in connection with various botanical fields such as Agriculture, Horticulture, Forestry, Conservation, Plant Breeding, and others.

Botany courses can play a significant role in a wide variety of programmes of study. They can be combined with courses in Zoology in various proportions to provide programmes in Biology. Those who seek to teach Biology in the secondary schools should select such a programme, balanced according to the requirements of The College of Education for entrance to its various teaching certificate programmes. More general programmes can be devised including Botany either to obtain an overall knowledge of several fields, or to provide a background for environmental studies. Combinations with Chemistry can lead to specialization in Biochemistry, Microbiology, Food Chemistry or Chemo-

taxonomy. Combinations with Physics opens the study of Biophysical problems, such as ion or water transport in plants, photosynthesis, and many others. With Geology it may be applied to the use of plants as indicators of elements in the earth crust, or of fossil plants to identify geological strata.

The main areas of specialization in Botany are: plant relationships (Systematic Botany, Biosystematics, Cytotaxonomy) and distribution (Phytogeography), structure and evolution (Anatomy and Morphology), function and development (Physiology), ultrastructure in relation to function (Cell Biology) or to hereditary problems (Cytology, Cytogenetics), plant diseases (Pathology, Virology), the interrelationships of plants and the environment (Ecology), the study of fungi (Mycology) or of algae (Phycology).

Because of the great variety of possible combinations in Biology, prerequisites are kept to a minimum, but students are strongly advised to follow the recommendations made by the Department. The Department should also be consulted if the student wishes to follow a programme toward any particular area of specialization.

Admission to graduate studies in a botanical field will be based on the successful completion of a specialist programme in Botany. The backgrounds of other applicants for graduate work will be evaluated on an individual basis.

A student who wants to specialize in Botany should lay a foundation of knowledge of the Biological and Physical Sciences by selecting in the First Year BIO 100 or 120, (or BOT 100), CHM 120, MAT 130 or 135, and PHY 130 or 140. A training in Mathematics is essential for the solution of a number of biological problems. In the 200 series BOT 210 (Morphology and Evolution) and BOT 240 (Introductory Cell Biology), as well as CHM 235, are regarded as fundamental to any further specialization in Botany. Further selection can be made from other Botany and Zoology courses, MBL 220, PHY 230.

In the 300 series the following courses in Botany are regarded as fundamental: BOT 300 (Systematics), 320/321 (Physiology), 330 (Ecology) and 341 (Cytogenetics). They provide for a broad botanical back-

ground, but each will lead to an area of specialization. Further choices may include: other Botany or Zoology courses, BCH 320/321, MBL 300, STA 232 or 242. The 400 series offers a choice of special courses in various fields.

Entrance to a Type A certificate programme in Biology at the College of Education, at present requires: a to-

tal of 20 courses (or 60 credits) after Grade XIII, of which at least eight courses must be in Biology (Botany and Zoology), one in Calculus and five in Chemistry, Physics and Mathematics. For a Type A certificate in Science, in which Biology is chosen as one of the subjects, at least five courses are required in Biology, with the other nine distributed over the Physical Sciences and Calculus.

CHEMISTRY

Acting Chairman of Department: Professor A. G. Brook

Undergraduate Secretary: Mrs. M. E. Brereton

Departmental Office: 928-6033 and 3604

Chemistry is both a challenging intellectual pursuit and a dominant force in shaping our modern civilization. Modern Chemistry places a strong emphasis on an understanding of the structures and properties of individual atoms and molecules and on using this understanding to interpret and predict the behaviour of matter. Many of the concepts of Physics and the methods of Mathematics are basic to Chemistry. Chemistry is, in turn, of fundamental importance to many other subjects ranging from the biological and medical sciences to Geology, Metallurgy, and Astrophysics. These and other aspects of the subject are reflected in the courses offered and the programmes recommended by the Department of Chemistry.

The basic course offered in First Year is CHM 120 and it should be chosen by all those who wish to continue the study of Chemistry in a later year or who require Chemistry as preparation for another science. Grade XIII Mathematics A and Chemistry are the normal prerequisites for this course, although students who lack Grade XIII Chemistry may enrol provided they take a special 2 hour per week tutorial during the fall term. This special tutorial will cover the Grade XIII material essential for an understanding of the content of CHM 120. (Students intending to enrol in CHM 120 without Grade XIII preparation are advised to consult the Department at the earliest possible opportunity so that a suitable reading programme may be arranged prior to commencement of lectures). In addition to these special tutorials, regular weekly tutorials will be given at different levels to take account of different interests and aptitudes. Students may choose either a tutorial which gives a discussion of problems arising from the lectures and laboratories or a tutorial which provides a deeper consideration of theoretical, mathematical, or chemical aspects of the subject. There will be one afternoon (4 hours) of laboratory every second week.

A second course, CHM 100, is specially designed for nonscientists. It seeks to give an insight into the scientific methods from a chemical viewpoint. This course is not an equivalent to Grade XIII Chemistry nor does it serve as a prerequisite for any other Chemistry course. There are no prerequisites and it may be taken in any year, with the result that it can form part of a sequence with similar courses in the other sciences to give a non-scientist an insight into the ideas and methods of science.

Chemistry courses normally offered in the Second Year are CHM 220 and CHM 235. The latter course combines organic and inorganic chemistry in a unified approach, treating structure and bonding in some detail. CHM 220 considers some of the more physical aspects of Chemistry and is more mathematical. Students wishing a firm background in Chemistry but who wish to take only one Chemistry course a year should postpone CHM 220 until Third Year. Other advanced courses (normally 300 series) may be taken if prerequisite conditions have been met.

Details of specialist programmes recommended by the Department are presented elsewhere in this Calendar. These programmes, Chemistry, Chemistry (with Physics), Chemical Physics, and Chemistry and Mathematics have been designed to provide the student with an integrated series of courses which, over the four years, will provide a sound background in the areas indicated by the programme titles. Students are free to deviate from these programmes and, indeed, to devise new interdisciplinary programmes; however, prior consultation with the departments concerned is urged. All the programmes listed are suitable training for those wishing to enter science-based industry, to continue into graduate work and, with certain limitations, to teach Chemistry in secondary schools (Type A Certificate). The present requirements for a Type A Certifi-

cate to teach Chemistry require a minimum of 14 courses in mathematics and science with at least 8 courses being in Chemistry. A graduate degree is essential for teaching at the college or university level and is virtually essential for a research career.

The Chemistry Programme provides a basic core of Chemistry, with the necessary ancillary Mathematics and Physics, in the first three years, leaving the Fourth Year free for the student to choose courses reflecting his specific area of interest. This programme is suitable for entry into graduate work in any area of Chemistry.

The Chemistry (with Physics) Programme is similar to the Chemistry Programme but offers more opportunity for the study of Physics and is therefore particularly suitable for those students interested in the more physical areas of Chemistry. This programme is suitable for those who wish to continue into graduate work, particularly in Physical Chemistry, although preparation for graduate work in other areas is readily achieved through the choice of options in the final two years.

The Chemical Physics Programme is an interdisciplinary programme designed particularly for those whose interests lie in the large area of science where these two subjects overlap. This programme is particularly suitable for graduate work in certain areas of Physical Chemistry and in Molecular Physics. Entry into re-

search in other areas of Chemistry is difficult but can be achieved if care is taken in the choice of options in the final two years. Similarly, a careful choice of options will be necessary if a Type A teaching certificate is desired.

The interdisciplinary programme in Chemistry and Mathematics is highly challenging and should be attempted only by outstanding students. It is designed particularly for those intending to do graduate work in Theoretical Chemistry or Applied Mathematics and a well-rounded training in either may be obtained by a careful choice of options, particularly in the higher years.

Examination of the specialist programmes will show that they differ only slightly in the first two years. For example a choice of CHM 120, PHY 120 and MAT 139 in First Year will permit entry into the Second Year of all but the Chemistry and Mathematics Programme. The second year programmes also differ only slightly and transfer between programmes at the beginning of Third Year will, in general, be possible. It should also be pointed out that, regardless of the programme chosen, a student wishing a balanced training in Chemistry should take each of CHM 320, 330 and 340. In addition, as the computer is playing an increasingly important role in all areas of Chemistry, a half-course in Computer Programming is recommended as part of any chemist's training.

CLASSICAL STUDIES

Chairmen of Departments of Classics:
University College: Professor G. V. Sumner
Victoria College: Professor D. O. Robson
Trinity College: Professor D. J. Conacher
St. Michael's College: Professor the Reverend J. J. Sheridan

Enquiries: 924-2121

Classical Studies are concerned with the linguistics, literature, philosophy and history of Greece and Rome. For the linguist, Greek and Latin lay a solid foundation for the study of the Indo-European languages ancient and modern: Sanskrit, Persian, Armenian, Teutonic, Slavonic, Lithuanian and Celtic. Students and lovers of literature are introduced to early and often unsurpassed works in every genre which have contributed form, content, and critical standards to every European literature. The philosopher encounters the seminal ideas of European philosophy clearly and simply expressed. The political scientist observes a peo-

ple, passionately interested in both the theory and practice of politics, who explored the possibilities of elitist governing groups, enlightened and unenlightened despotism, and democracy, singly and in a variety of combinations, in national, federal and imperial contexts, and on every scale from city state to "world empire". Students of religion discover a rich variety of religious experience, interesting in itself and for its formative influence upon Christianity and Islam. The historian, with an entire civilization before him from beginning to end, can compare it with his own, and can trace the evolution of a single great social experi-

ment from its first creative phase, through its mature achievement, to its final period of consolidation — and obsolescence. Classical language, literature, philosophy, political experience, religion, law, art, architecture, and Euclidean mathematics are still factors in our lives, and our understanding of the present will be enhanced by some understanding of these formative influences from the past.

The Department has devised programmes for students who seek to specialize in Classics, Greek, Latin, and in Greek and Roman History, beginning in the Second Year. One first-year course in Greek, and one in Latin, are sufficient to admit a student to any of these programmes. The Programme in Classics will consist of two courses a year in Greek, and two in Latin, with the possibility in the upper years of concentrating upon any two of literature, history or philosophy. The Programme in Greek will consist of three courses in Greek, and one in Latin, in each year. The Programme in Latin will consist of three courses in Latin, and one in Greek, in each year. The Programme in Greek and Roman History will require two courses each year in that subject, together with six unspecified courses in Greek and Latin (at least one in each language to be completed by the end of the Third Year) to ensure to the specialist in this field a grasp of his linguistic tools. Graduates of these programmes will generally teach in schools and universities, but many have found in their classical training an excellent background for careers in Church, Law, the other professions, and business. It is anticipated that these programmes will lead to Type A certificate programmes at The College of Education, and will admit graduates to schools of graduate studies here and abroad.

Students who do not seek to specialize in any of these fields may take any course in the Department for which they have the stated prerequisite. It will be appreciated that advanced work in Greek and Latin can only safely be undertaken by those who have studied those languages in previous years. But an effort has been made to limit prerequisites and to broaden choice. Courses in Greek and Roman History and Classics in Translation have no prerequisites, and for the most part any course can be taken in any year.

Any student can combine the study of Greek, Latin, Greek and Roman History and Classics in Translation with a variety of other disciplines. The Department will demand no more than one first-year prerequisite for any programme administered by the Department of Classics jointly with another department representing specialization in more than one discipline. Students of medieval and modern languages and literatures, of the ancient and contemporary civilizations of Asia, of Anthropology, Fine Art, Philosophy, History, Religion, Sciences and Mathematics can find in the study of Greek and Roman material relevant to their several interests.

Whether the student approaches the Classics in the original languages or in translation, he will have been introduced to intelligent people of another society faced with, and trying to meet, basic and universal issues. He will have a better sense of what these issues are, and of possible responses to them. His study of Classical civilization will have given him new questions to ask of his own society, and a broader feeling for possibilities in present and future.

EAST ASIAN STUDIES

Chairman of Department: Professor A. K. Warder
Undergraduate Secretary: Professor D. B. Waterhouse

Departmental Office: 928-3301

East Asian Studies in the University of Toronto is a branch of the humanities, devoted to the study of the civilizations of India, China, and Japan. Its aim is to understand the cultural heritage of three ancient and still extremely vital peoples. While they have evolved independently of Western culture, today Eastern and Western traditions are flowing together into a single world civilization. The future of this world civilization may be as rich as the sum of all its component traditions, plus the new impetus which can arise through their interaction. Our insecure and suicidal world

needs all the wisdom it can command if it is to have any future worth contemplating; the realization of this need explains the contemporary interest in the heritage of Asia. Some people point out, quite rightly, that if the West is to co-exist with the East we must understand each other by learning each other's languages and studying each other's cultures. But a more positive approach should be urged: we may learn interesting and useful things from each other, enriching our common heritage, whilst we learn about each other as a matter of mere practical necessity. Asian literature,

for example, is interesting as literature, especially in the light of Asian literary criticism; it is not just an exotic curiosity.

The offerings of the Department of East Asian Studies parallel those of a language and literature department like, say, French since the main programmes are structured in the same way as those of such departments. They are in a sense wider, however, like Classics since the same Department offers complementary courses in the philosophy, history and, to some extent, the art of the countries studied.

The discipline of East Asian Studies is a complex of Linguistic study, Literature, Philosophy, History and Art. Competence in the relevant languages is basic and our three programmes (each of which allows students to emphasize the Literature, Philosophy or History of the area) are therefore centred on Sanskrit for Indian Civilization (this being the language of most of the important literature; Hindi and Pali also are offered), classical and modern Chinese for the Chinese Studies Programme and classical and modern Japanese for the Japanese Studies Programme. Any student considering the possibility of preparing for advanced work in Asian Philosophy, History or Literature, should take the relevant language course in the First

Year. For Philosophy there are introductory courses in the Second Year, without language prerequisite. It is suggested that students interested in Asian Philosophy take PHL 100 in their First Year by way of preparation. For History there are, similarly, broad courses without language requirement in the first two years, and advanced courses with study of original sources in the later years. There are also introductory courses of literature in translation, distinct from the readings in the original that form part of the language courses and advanced literature courses. Detailed outlines of these programmes are provided in the section on programmes.

There are numerous possibilities for combining courses in East Asian Studies, including those providing language study, with courses in other departments in order to form programmes of study that emphasize different fields and satisfy different interests; courses in Philosophy, Linguistics, or another language and literature are of particular interest in this regard. A programme that includes courses in Philosophy taken concurrently with courses in Sanskrit and in Indian Philosophy enables the student to study Indian Philosophy in relation to the concepts of Western Philosophy.

ENGLISH

Chairmen of Departments:

University College: Professor J. J. Carroll

Victoria College: Professor F. D. Hoeniger

Trinity College: Professor M. T. Wilson

St. Michael's College: Professor R. J. Schoeck

Enquiries: 928-3917

The study of English attempts to engage the mind, imagination and sensibility of the student in the literature of the English-speaking world, and in related literatures, both classical and modern. The sequence of English literature, from its beginnings (about the seventh century) to the present, constitutes a continuous tradition that reflects the vitality of an entire civilization — its political, social, religious, scientific, and cultural life — and, in addition, presents a permanent record of the ways in which the human mind and imagination have responded to recurrent problems and situations. At the same time, each age gives rise to its own peculiar problems. The literature of the past and the literature of our own day can cast light upon the present and indeed upon the future. Literary studies can provide us with a fuller knowledge of ourselves

and our world and with deeper insight into the nature of human experience.

More particularly, the undergraduate study of English in this University prepares the student for more advanced work in the discipline, appropriate standing in the English Language and Literature Programme qualifying the student, unconditionally, for graduate study in accredited universities of this country, of the United States and of the United Kingdom. In addition, it prepares its students for a Type A certificate programme for secondary-school teachers, particulars of which can be obtained from The College of Education, for work in journalism and in the publishing field, and for positions in business and in various departments of government.

Students who seek to specialize in English may enrol in the English Language and Literature Programme in Second Year. This structured programme contains a series of core courses that are required, together with a number of options. For details of the Specialist Programme in English, see below.

Combined programmes will be provided in collaboration with other departments in such fields as English and an ancient or other modern language, English and History, English and Philosophy, English and Psychology, English and Mathematics. Students should consult the departments concerned for advice as to appropriate course combinations. Students who seek double certification in English and one other subject are required to achieve at least B-standing in a core programme of at least seven English courses. For details of the core programme, see below. Appropriate standing in such combined programmes provides qualification for double certification in Type A programmes of The College of Education.

Students who seek the opportunity either of acquiring a breadth of experience in a wide variety of disciplines (for example, ancient and modern languages, social sciences, physical sciences, etc.) or of focusing their studies upon two, three or more subjects (for example, English and History, or English and History and Sociology; English and Slavic Studies, or English and Slavic Studies and Philosophy, etc.) can devise many different programmes of study to suit their needs. English is a very appropriate subject for inclusion in such programmes, not only because the stu-

dent has the opportunity to improve his writing skills in the essay work that each English course requires, but also because he is introduced to a humanistic approach to the civilization that is part of the Canadian heritage. The student in such more general programmes can select courses to suit his needs; he can of course elect only an occasional course in English; on the other hand he can, without entering the Programme in English Language and Literature, choose a larger number. By careful choice, such students, while continuing their studies in other disciplines, can qualify for entry to programmes for Type B certification, Intermediary Endorsement or even Type A certification in either one or two subjects at The College of Education. Students should consult The College of Education for details regarding the requirements for entrance to the various programmes of the College.

Students who achieve at least B standing in the English Language and Literature Programme especially designed for the Specialist are normally admitted, without condition, to Graduate Studies in English in this University. This is generally true of students applying for admission to graduate studies in English in other Canadian universities, in the United States and in the United Kingdom. Applications for admission to Graduate Programmes made by students who have chosen not to enrol in the Specialist Programme will normally be evaluated on the strength of the distribution of courses and of standing in the programmes followed. Conditions in certain courses at the undergraduate level may be imposed.

FINE ART

Chairman of Department: Professor G. S. Vickers
Undergraduate Secretaries: Professor F. E. Winter,
Miss Marion Walker

Enquiries: 928-3289

Studies in Fine Art at the University of Toronto attempt to define the role of the visual arts in the development of man. The methods used are both historical and, through the use of studio courses, experimental and creative. The courses survey all periods from the Bronze Age to the present in the Mediterranean area, Europe and North America. The student may extend his enquiry to the arts of the Islamic and East Asian civilizations and the aboriginal peoples in courses given by other departments. The scope and variety of available courses will prepare the student for the role of teacher, and museum curator, though a further stage of professional training is required for both edu-

cational and museum work. Because the modern world has become keenly aware of the visual arts as an area of communication, there is, especially in Canada, a demand for trained guidance which exceeds the supply.

Generally, the evidence provided by the Fine Arts enriches the understanding of other disciplines approached by the historical method. The History of Art can be related to the courses taught in the Department of History. It is one aspect of cultural history examined in the studies of literature in several language departments. To those interested in Music, the Fine

Arts is a sister discipline. A combination of Fine Art courses and Philosophy can improve the grasp of those interested in aesthetics. Combinations listed in this paragraph are to be encouraged, as they provide a substantial basis for a continuation of an educational programme especially at the graduate school level.

To insure a reasonable control of the material for later professional use, the programme which represents specialization in Fine Art requires a minimum of ten full courses. Two separate fields of specialization have been designated, one in the History of Art, the other in Studio. For the first, there must be at least ten courses in the History of Art. For specialization in Studio, at least six studio and four history of art courses must be taken.

For specialization in History of Art the student should choose, in addition to the basic courses FAR 100, 101, 102, 200, 201, at least five advanced courses, including at least one from each of the Ancient, Mediaeval, Renaissance-Baroque, and Modern areas. Those who are particularly interested in Ancient art, however, should concentrate their basic and advanced courses mainly in that area, including courses offered by the Classical Studies and Near Eastern Studies Departments.

The Department of Fine Art requires no prerequisite at the secondary school level for courses in the History of Art; but for admission to FAR 110 the applicant must present evidence of interest and ability in the form of a portfolio. Within the New Programme the four basic courses, FAR 101, 102, 200, 201 are suffi-

cient for admission to all other courses. Because the History of Art is taught in chronological sequence, the lack of knowledge of what has gone before can prove an impediment to proper study and normally should be avoided. In the Third and Fourth Years language prerequisites are listed because much of the reading material in Fine Art is available only in French, Italian and German. For this reason, it is wise to include (from the First Year) basic language courses among the choices.

To gain sufficient credits for the Type A certificate at The College of Education it is recommended that the student take the Studio Programme to the maximum offered, plus FAR 101, 102, 200, and 201. To make up the remainder of the required specialty credits at least four further history of art courses are required; for purposes of this calculation the course in Aboriginal art in Anthropology and offerings in the History of Art in the Near Eastern, East Asian, and Islamic Studies Departments may be counted.

For the student considering a career as an artist, the Studio Programme is designed to assess his potential, acquaint him with the possibilities best suited to him, and prepare him on graduation to enrol in post-graduate professional training. It must be stressed that this programme is preliminary, having as its special goal to arouse in the would-be artist a critical awareness of his own environment. He would profitably choose introductory courses in the Social Sciences, Philosophy and the other modes of modern expression — music and the literatures. It does not provide technical competence to the level of that of a trained artist.

FRENCH

Chairman of the Combined Departments:

Professor D. W. Smith (Victoria College)

Chairmen of College Departments:

University College: Professor P. R. Robert

Victoria College: Professor A. R. Harden

Trinity College: Professor W. S. Rogers

St. Michael's College: Professor the Reverend R. B. Donovan

Enquiries: 928-3854

French studies in the University of Toronto provide varied and flexible approaches to one of the world's great languages which holds a position of unique importance in a Canada committed to a confident, practical and creative acceptance of bilingualism. Equipped with a sure knowledge of the language, stu-

dents will be able to enjoy the riches and intellectual challenge of the literatures of France and French Canada through a wide range of imaginative courses.

The University of Toronto is happily aware of the great strides made in the last twenty years in the teaching

and learning of French in the secondary schools. Our basic first-year course, French 120, assuming satisfactory completion of Grade XIII French, is principally devoted to consolidating the previous experience of students in the range of advanced studies open to them. This basic course, conducted entirely in French, as are the great majority of our courses, will include intensive language practice, and much of this will involve carefully planned work in one of the language laboratories that serve students of French in all the colleges. The practical skills thus developed will find a natural outlet in the discussion and essay-writing in French which will be a part of subsequent courses. The basic course is also available in Second Year, or even later to students who are not specializing in French. On the other hand, it may be omitted in whole or in part by specially qualified students who pass a searching test, and these may proceed directly to a more advanced course.

Supplementary to the basic course, two literature courses including French and French-Canadian literature of the twentieth century will be open to first-year students. In these courses the student will be introduced to the intensive study of vital works of literature and also to the various approaches — historical, biographical, psychological, analytical, structural, sociological, etc. — any of which should be familiar alternative avenues to the appreciation of literature.

Programmes representing specialization in French may be entered in Second Year (although up to two first-year courses may count towards specialization). In the Second Year, the student may choose up to four courses drawn from the following range: (1) the main trends of French and French-Canadian literature; (2) various genres — poetry, theatre, the novel, etc. — in various periods; (3) advanced language — phonology, morphology and syntax, stylistics, etc.; (4) language practice; and (5) courses of independent study in which the student has a hand in defining his field of interest and meets in small tutorial groups for discussion and reading. All of these courses are open to students in higher years. Successful completion of two second-year courses may entitle a student to participate in the Third Year Abroad programme administered by the department.

Third- and fourth-year courses, in most cases interchangeable and open to qualified students, offer further studies in literature from the Middle Ages to our own day and other options in advanced language work, semantics, comparative stylistics, etc. Independent

study courses are also provided in each of these years, as well as an ambitious series of inter-college seminars allowing greater concentration and study in depth. A course in the French cinema is also offered at this stage.

From such a wealth of courses students of widely differing tastes and needs may select satisfying programmes. Some enthusiastic specialists in French might elect to take the maximum of French courses allowed, three in the First Year and an average of four in each of the other years, but a student will be regarded as a specialist in French upon satisfactory completion of a minimum of 10 courses. Details of language, literature and French linguistics requirements may be found in the Calendar under the heading Programmes of Study. A specialist student may qualify for entrance to a Type A certificate Programme in Français at The College of Education. Many specialists in French may wish to pursue parallel studies in other languages — Latin, English, German, Italian, Spanish or Russian — so qualifying for entrance to a Type A certificate programme in two languages. Other specialists will wish to enrich their programme in French with closely related studies in Linguistics, Classics, History, Philosophy, Art, Music, etc. Specialists in other disciplines, perhaps particularly in the social sciences, will frequently find French a natural complement to their programmes. Still others who prefer a broad general programme will have the same wide choice of electives in French following the prerequisite basic course. These combinations are limited only by the student's ingenuity and the time-table.

Well-qualified students who have not completed Grade 13 but successfully demonstrate their reading ability in French may be admitted to a series of courses in which the emphasis will be on the reading of selected works in French related to a literary mode or tendency (tragedy, comedy, realism, idealism, etc.), with classes being conducted in either English or French.

Students planning to specialize in French are urged to present at least Grade XII Latin, which is necessary for a study of the history of the language and medieval literature, and is a requirement for graduate study of French. In lieu of such Grade XII Latin, a beginner's course in Latin may be taken as part of the student's programme. Students contemplating graduate work in French are asked to consult the secretary of the Graduate department for further information about requirements.

GEOGRAPHY

Chairman of Department: Professor D. P. Kerr
Undergraduate Secretary: Professor N. C. Field

Departmental Office: 928-3375

Geography at the University of Toronto emphasizes the study of the relation between man and his environment, the changing social and economic interactions of people and the spatial patterns of such physical features as climates, landforms, soils and vegetation. The study of the relation between man and his environment brings to light the manner in which man has used the physical resources of his environment in the past and is using them now; it can point to the ways in which man should use his environment in the future. These studies lead to a better understanding of such problems as air- and water-pollution and overpopulation that are of concern today. In Physical Geography studies are undertaken to investigate physical processes that take place on the earth and to examine their relation to man's economic and social development. In the study of Economic Geography, which is one of the most popular fields of Geography, emphasis is placed on the allocation of the uses of land, the flows of goods and people, such as migration, commuting, trade, transportation and the location of industry, both in an evolutionary and optimizing sense. Such studies are highly important to the understanding of urbanization and to regional economies.

All studies in Geography are concerned directly or indirectly with the broad theme of man and society. Each society has been affected by the physical environment in which it has lived; it has in turn changed and continues to change the environment.

Geography is an important and well-established subject in the secondary schools and there is a continuing demand for qualified teachers. Geographers are in demand at all levels of government service, in the Federal Departments of Energy, Mines and Resources (with a special demand in the Water Resources Branch), External Affairs, Trade and Commerce, Northern Affairs, Regional Development, and other branches. Many graduates of an undergraduate programme in Geography proceed to an M.Sc. degree in Urban and Regional Planning. In the world of business, graduates in Geography have attained success in marketing firms, transportation companies, and consulting agencies.

Geography is a natural component of many interdisciplinary programmes of study. For example, Geography already plays an important role in the Latin American

Studies Programme and offers courses (particularly those dealing with specific regions) that would form valuable complements in programmes of study dealing with Canada, the United States, the U.S.S.R., China, or Western Europe. Physical Geography and Geomorphology have close connections with Geology, Civil Engineering and Archaeology. Studies in Climatology and Biogeography have relevance to programmes that emphasize Biology or other sciences, especially those concerned with ecological studies that form a necessary basis for investigation of all aspects of land, water and air pollution. Geography, History (particularly Economic History), and Cultural Anthropology can be combined effectively by the student interested in problems of the past such as, for example, the manner in which European patterns of land-holdings and agriculture were adapted to life in the New World by the European settlers, and how these patterns altered as the New World developed. Geography, Economics and Sociology join forces to tackle many contemporary problems such as those of urban growth, regional disparities, and resource management. Students should note that Mathematics now plays an ever-increasing role in modern Geography with the development of models permitting quantitative analysis of particular problems.

The Programme in Geography has been devised to provide the student with an integrated pattern of specialized study, the completion of which confers on the student a measure of professional status. Admission to a graduate programme in the Department of Geography at the University of Toronto normally requires upper second-class standing in the later years of this Programme. Students following different programmes are usually required to take a two-year, rather than a one-year, M.A. programme. The admission requirements to a Type A certificate programme for secondary-school teachers include at least 27 credits (9 courses) in the major field and at least 15 credits (5 courses) in related disciplines.

A student may enrol in the Geography Programme in the Second Year. This Programme requires at least nine full-courses (or the equivalent of half-courses) in Geography during the four years of the undergraduate programme. Of these nine courses, four and one-half are specified as constituting a common core for all students following the specialist programme: GGR 100

(Introductory Physical Geography); GGR 270 (Analytical Methods); GGR 320 (Philosophy of Geography); GGR 390F or 391F (Field Methods I or II); and GGR 491 (B.A. Thesis). A course in statistics offered by another department could be substituted for GGR 270 as part of the core, but should not be considered as one of the nine courses in Geography. The remaining courses in Geography may be selected from the options available in various branches of the field. Specialists in Physical Geography should include at least one course in Human Geography in their programme.

GGR 100 should be included in the second-year programme if it was not taken in First Year, and a student should complete at least three Geography courses by the end of his Second Year. A student can enter this Programme as late as the beginning of his Third Year, but should consult the Department to determine what courses or summer assignments may be required. Enrolment in the Fourth Year of the Programme, including the B.A. Thesis, is open only to those students who will have completed nine Geography courses (including the four and one-half required courses) by the end of their Fourth Year. There is no specified limit on the maximum number of Geography

courses that can be included in this Programme, but students are strongly advised to take at least one-third of their courses in other related disciplines. Faculty advisors are available for consultation as to what are appropriate course combinations to satisfy each student's particular interests.

GGR 100, 101 and 220 are available to students who enter the First Year. A student who intends to specialize in Geography and enter the Geography Programme in second year is advised to take no more than two of these courses in his first-year programme (all three are also available to second-year students), and to select the remaining courses to suit his interests. The following first-year courses are suggested for consideration, as complementary to a Geography programme: ANT 100, 150, ECO 100, SOC 101, HIS 100, FRE 120 (or another language), MAT 110 or 134 or 135, GLG 100, BIO 100 or 120, CHM 120, and PHY 130 or 140. Mathematics is strongly recommended to students interested in advanced work in Physical Geography or in the more mathematical branches of Urban and Economic Geography. Courses in the sciences are desirable for those who plan to specialize in Physical Geography.

GEOLOGY

Chairman of Department: Professor E. W. Nuffield

Departmental Office: 928-3021

Geology is the science of the earth. It includes all knowledge of the earth — its origin, history, structure, composition, and mineral wealth — and the physical, chemical, and biological processes that change the earth. A most comprehensive subject, it may be divided, for convenience, into three broad branches: Geophysics, in which modern methods of Physics are used to reveal the nature of the interior, of the outermost skin, and of the atmosphere around the earth, and to study the enormous forces that have acted and are still acting to change the earth; Geochemistry, in which experimental and analytical methods of Chemistry are used to understand the chemical processes which have given rise to the rocks, oceans, and mineral wealth of the earth; and Geobiology, which deals with the origin and evolution of living things on the earth's surface throughout geologic time. Because Geology involves the application of the fundamental sciences towards understanding the earth, its study requires a grounding in Mathematics, and in the principles and methods of Physics and Chemistry, or Biology.

Geology offers a rewarding career for both male and female students who have scientific ability and who are interested in studying the earth. A geological study begins with observations made in the field; these are then brought back to the laboratory where further observations are made, and possible explanations proposed and tested. Some geologists prefer to work exclusively in the field; others prefer to work in the laboratory; and yet again others divide their time between the field and laboratory.

Many graduate geologists enter industry, using their knowledge in the search for oil and mineral deposits. Others work for the federal and provincial surveys, where they are involved in mapping and understanding rocks on a wider scale. Still others have become involved in the search for fresh water in arid areas, in oceanography, and in the exploration for resources at the bottom of the seas. Perhaps the most exciting project in store for geologists is the investigation of rocks from the moon and planets. Because the programme

in Geology is well grounded in Mathematics and basic science, graduates are able to transfer to related disciplines, such as materials science, solid state physics, or metallurgy for additional university training or employment.

An increasing number of the more interesting positions open to geologists require graduate experience. Graduates from the programme in Geology are prepared for advanced study towards the M.Sc., and Ph.D. degrees in most fields of Geology.

GERMAN

Chairmen of Departments:

University College: Professor H. N. Milnes

Victoria College: Professor G. W. Field

Trinity College: Professor D. A. Joyce

St. Michael's College: Professor V. Mueller-Carson

Enquiries: 928-3186

For the past two hundred years Germany, together with Austria and German-speaking Switzerland, have played increasingly important roles in European life, both as leaders in commerce and industry and as the homelands of important musicians, philosophers, scientists, psychologists, and religious and political thinkers. Their scholars are unrivalled in such fields as Biblical Studies, Mediaeval Studies, Philosophy, Archaeology, Art and Music History, and Physics and Chemistry. Modern literature in Germany is equally distinguished. It developed late. The first great writers appeared towards the end of the eighteenth century. But from Lessing, Goethe, and Heine to Brecht and Thomas Mann they have remained vigorous and individualistic, and concerned with the widest range of human problems, philosophical and psychological, moral and religious, social and economic.

University courses in German offer a thorough study of the language and of the more important authors from the Middle Ages to modern times. Language study includes phonetics and laboratory work, oral expression, translation, and essay-writing. In the senior years students receive advanced language training and may choose from a variety of courses in literature and in the development of the language. Scholarships for study at German universities are available for graduate

students, and the German government sponsors flights to Germany and summer work for undergraduates.

German may be profitably studied in combination with other languages and literatures, with Linguistics, Philosophy, or History. It is offered as an option in such programmes for specialists in English, Music, and Fine Art, and forms itself a part of programmes that specialize in languages and linguistics.

Because it is a well-established fact a young student learns languages more easily and more thoroughly than an older one, Grade XIII is the normal prerequisite for university courses in German. For departments or faculties that require a student to learn to read scholarly German, however, provision is made for appropriate instruction for beginners and for guidance in reading in specialized fields for those who already have some knowledge of the language.

The successful completion of a four-year programme, including seven approved courses in German, entitles a student to do graduate work in the Department. A knowledge of German is also a valuable asset in many other fields, including foreign service. For information concerning admission to Type A certificate courses at The College of Education the student should consult the College.

HISTORY

Chairman of Department: Professor A. P. Thornton
Undergraduate Secretary: Professor R. J. Helmstadter

Departmental Office: 928-3363

The Department of History at the University of Toronto at present consists of sixty full-time members of staff, whose professional interests range through such diversified fields of History as: British and Commonwealth, Canadian, East Asian, East European, European, Latin American, Russian and United States. In the British and the European fields the medieval as well as the modern periods are fully covered. Other fields such as Greek and Roman, Near Eastern and Islamic History are taught by other departments. We aim, in the various undergraduate courses of the Department of History, to introduce the student to as wide and as deep a range of study as is possible.

Our basic approach to instruction in these courses is to combine lectures with a small tutorial group, in which the students and the tutor can explore historical problems in depth. In upper level courses instruction may take the form of a lecture without tutorial groups, or seminars without lectures.

Students who seek to specialize in History are required to enrol with the Department in a History Programme. A Specialist Programme in History consists of a minimum of seven courses in History, not including HIS 100. The Department encourages each History

Specialist to define his own interests, and considers it a matter of primary importance that he pursue an academically coherent and sensible programme of study. Through its system of advisers, the Department will assist each Specialist in choosing his History courses and his other courses in order that he might better be able to construct a carefully integrated programme.

The Department does not require a Grade XIII prerequisite for entry into the first-year course in History. It does not require HIS 100 either for entry into the Programme for Specialists or as a prerequisite to any further History course. The Department recommends, however, that a first-year student who intends to specialize in History include HIS 100 in his programme. In this course the student is given a general introduction to the historical discipline. In his subsequent years he will develop his knowledge in the fields of his particular choice.

Students who wish to obtain a Type A Certificate must conform to the regulations laid down by The College of Education, i.e., a minimum of nine courses in History. Students who intend to follow their undergraduate education with graduate work should confer with departmental advisers regarding their programme.

ISLAMIC STUDIES

Chairman of Department: Professor R. M. Savory
Undergraduate Secretary: Mr. J. R. Blackburn

Departmental Office: 928-3307

The discipline of Islamic Studies is concerned with the total culture and civilization of the Islamic world from the advent of Islam in the 7th century A.D. up to the present day. By "Islamic world" is meant those regions where Islam is, or was, the dominant religion. It is therefore not limited to the Middle East, but includes areas as far apart as North Africa and Spain on the one hand, and China, Malaya and Indonesia on the other. Today, about 450,000,000 people call themselves Muslims. The study of Islamic civilization thus

introduces the student to the culture of about one-sixth of the total population of the world.

The discipline of Islamic Studies is concerned with the study of the literature, history, religion, philosophy, thought, art and architecture of the Islamic world as defined above. Because languages are the key to the understanding of any culture, courses are offered in the principal languages of Islam: Arabic, Persian, and Turkish. In addition, Urdu is available at the grad-

uate level. Of these, Arabic is the most important; Arabia was the birthplace of Islam, and Arabic is the language of the Qur'an, the revealed scriptures of Islam. Today, Arabic is the common language of people from Morocco to the borders of Persia, and from Syria to the Sudan. But Muslims speaking and writing Persian, Turkish or Urdu have, through the centuries, made a vital contribution to that unique cultural achievement which we call Islamic civilization.

The discipline of Islamic Studies is conceived in the broad tradition of the humanities. Its special appeal is that it affords the student the opportunity of studying a non-Western civilization. No longer can the West be content to ignore, or to have only vague and prejudicious ideas about, a substantial proportion of mankind. It follows that the civilization of Islamic merits study for its own sake.

There are many careers open to students in Islamic Studies. These include: university teaching; specialist Islamic librarianship (for those qualified in both Islamic Studies and Library Science); public administration; business; high school teaching; Islamic art and archaeology (usually connected with work in museums); journalism, and bibliographical work.

At the graduate level opportunities for advanced study are also provided, and graduate students are encouraged to take courses in other departments and centres in addition to courses specifically related to Islamic Studies. Such departments and centres include the Centre for Medieval Studies, the Centre for Linguistics, the Centre for International Affairs, the Department of Philosophy, the Pontifical Institute for Medieval Studies, and the Centre for Russian and East European Studies. There are many areas of research in which fruitful co-operation is possible between the discipline of Islamic Studies and other disciplines: for example, with Hispanic Studies, for the study of Islamic civilization in Spain; with Medieval Philosophy and Classics, for the influence of neo-Platonism on the Muslim scholastic theologians and political philosophers, to name but one possible area; with History, for the study of those periods during which there was close contact between Islam and Christendom, for instance, the Crusades, the Mongol invasions of western

Asia and eastern Europe, and the 600 years of the Ottoman Empire; and with International Affairs, for the study of political and social developments in the modern Islamic world. For the linguist, the philosopher, the historian, the social scientist, and the student of comparative literature, the interaction between the two civilizations affords stimulating comparisons. Students should have these opportunities in mind when selecting the courses in their undergraduate programmes.

The undergraduate programme for students seeking to specialize in Islamic Studies is distinguished primarily by its insistence on real competence in at least one Islamic language. A student intending to proceed to graduate work in this discipline would be urged to study a second Islamic language, but this is not mandatory. At the same time, no proper understanding of Islamic civilization can be achieved without a thorough knowledge of Islamic history. The Islamic Studies Programme, therefore, is defined as a minimum of NINE courses in Islamic Studies, of which at least three shall be language courses and three history courses. A wide variety of options is offered in each year. Students who intend to enrol in this programme are urged to contact the Undergraduate Secretary of the Department of Islamic Studies as soon as possible, and in any case not later than the end of their First Year, so that the options which best suit their interests and needs may be selected. The number of prerequisites for courses has been kept to a minimum, but the sequential nature of language teaching requires that a less advanced language course will normally be the prerequisite for a more advanced language course.

A student who has followed the Islamic Studies Programme (minimum, nine courses) will automatically be eligible for graduate work in the field provided he has satisfied the admission requirements of the School of Graduate Studies. A student who has not so specialized as an undergraduate, but seeks to do so in the graduate school, will be admitted to a graduate programme in Islamic Studies provided that (a) he satisfies the basic admission requirements of the School of Graduate Studies, and (b) he takes such additional courses as the Department may consider necessary to make good his deficiencies in any particular area.

ITALIAN AND HISPANIC STUDIES

Chairman of Department: Professor G. L. Stagg
Undergraduate Secretary: Professor M. E. Rugg

Departmental Office: 928-3357

ITALIAN

To study "Italian" is not only to acquire a language, but also to study a rich literature and a many-sided culture that have played an important, and sometimes dominant, role in western civilization. For Canadians, the Italian contribution bears a special significance, since the vast influx of Italians in recent years has brought changes in our way of life and a living presence to reinforce traditional Italian influences and, in time, to enrich the meaning of the term "Canadian".

At the University, courses are offered for beginners in the language and for students with Grade XIII standing, or equivalent, ("matriculants"), in the subject. Stress is laid on both the spoken and written language and opportunities are provided for practice in each year. In the first year, beginners receive an intensive course including work in the language laboratory (ITA 100), while those with Grade XIII standing take one of the two language half-courses ITA 120Y and ITA 190Y according to their level of proficiency, either one of which is a co-requisite for ITA 121Y, an introduction to twentieth-century literature. Of the two additional courses, ITA 140, open to beginners and matriculants, discusses Italian history and thought, cultural, social and political, from unification to the present and the impact of Italy on the world of today, while ITA 141, open to beginners only, provides extra language practice, especially oral. In the Second Year, all students take a core half-course of language practice from ITA 220Y (for those with ITA 100), ITA 221Y and ITA 290Y (both for matriculants, according to their level of proficiency: ITA 290Y involves private study under supervision) and may also choose all or some of three half-courses on nineteenth and twentieth-century literature. All 300 and 400 series courses are open to third and fourth year students who have taken ITA 220Y or ITA 221Y or ITA 290Y, though ITA 321 is a co-requisite for all other literature courses in these two series. Third year students may take 400 series courses if they wish. 300 and 400 series courses offer a wide range of options in literature and language. In all years, outstanding literary works are read not only for their individual artistic value, but also to illustrate the outlook and intellectual climate of their age. Group discussions and the preparation of reports and essays are important means to this end.

In view of the presence of many native speakers among students of Italian, oral courses will be optional and will no longer appear among those giving credit (except for ITA 141): instead, such courses will be offered at varying standards for students needing them. Thus students may join the group appropriate to them irrespective of their year and change groups in accordance with their progress. Proficiency in oral work will be certified by the Department.

All students will take a written language half-course in each of the First and Second Years, but, thereafter, may do so or not according to their individual need.

With the recent marked growth of Italian in the high schools of Ontario, openings for teachers qualified in Italian and another language are increasing. At the university level, there has existed for some years in North America a shortage of faculty members in Italian. In addition, the study of Italian, as of other modern languages, may prepare students for such careers as the foreign service, publishing, journalism, and commercial or cultural relations between Canada and Italy.

Italian may be combined with other modern languages and literatures, including English; the appreciation of mutual influences will broaden the student's understanding of each. The three great Italian writers of the fourteenth century, Dante, Petrarch and Boccaccio, and the Italian Renaissance of the two following centuries, profoundly influenced other European literatures. Italian also combines naturally with Latin, and is useful in Fine Art or Music. Italian joins in programmes for students who intend a joint specialization on an equal basis with each of the other modern languages and with Latin; these require two courses in Italian and the equivalent in the other language in each of the Second, Third and Fourth years, and at least one course in each subject in the First year. They may take additional courses in Italian if they wish and if their programme permits. Such a selection of at least seven courses would qualify them for entry into graduate studies in Italian at most universities, or into a Type A programme at The College of Education. At present, Type A certificates may be gained in Italian and French, and Italian and Latin.

SPANISH

Hispanic culture offers a variety probably unrivalled by any other modern western culture. In the Middle Ages Spain was the vital point of contact between the Christian and Islamic civilizations; in its Golden Age it led the way in the exploration and settlement of the New World, and established a great empire in the process; today it is estimated that the Spanish language is the third most widely-spoken in the world.

The subject "Spanish" is mainly, but by no means exclusively, concerned with the language and literature of the Spanish-speaking peoples. Courses are offered for beginners in the language, as well as for those with Grade XIII standing or equivalent in the subject. Stress is laid on both the spoken and written language, and opportunities are provided for practice in each year. In the First Year, beginners receive an intensive course including work in the language laboratory (SPA 100), while those with Grade XIII standing read selected works of modern Spanish literature, while continuing their study of the language (SPA 120). Of the two additional courses, both open to both groups of students, one (SPA 150) provides a survey of the social, artistic and intellectual history of Spain, the other (SPA 125) investigates the history, structure, and lexical content of the Spanish language.

In the Second Year a student specializing jointly in Spanish and another language takes the core half-course of language practice (SPA 220Y or 221Y), and three of the half-courses devoted to modern Spanish literature (prose, poetry and drama) (SPA 236S, 246F, 256Y) and to a survey of Spanish American civilization (SPA 280Y). Another course (SPA 225Y) will introduce the student to Spanish phonetics and phonemes. In the Third Year the core half-course (SPA 320Y) consists of advanced language practice, and other half-courses are offered on medieval Spanish language, Spanish prose, verse and drama of the Golden Age, and Spanish American Modernista verse, twentieth-century novel and essay. In the Fourth Year a core half-course of advanced language practice (SPA 420Y) is supplemented by half-courses on medieval Spanish literature, history of the Spanish language, modern Spanish drama, verse and prose as well as on Spanish American colonial literature, drama, post-Modernista verse and the short story. In all years, outstanding literary works are read not only for their individual artistic value, but also as illustrations of the outlook and intellectual climate of their age. Group discussions and the preparation of reports and essays are important means to this end.

SPA 100 or 120 are prerequisites for second-year courses, SPA 220Y or 221Y for SPA 320Y, and 320Y for SPA 420Y. All 300 and 400 series courses (except

SPA 420Y) may be taken by any student with the prerequisite SPA 220Y or 221Y, subject to the approval of the Department. SPA 100 or 120 are co-requisites for SPA 125, SPA 220Y or 221Y for any other 200 series courses, SPA 320Y or 420Y for any other 300 or 400 series course.

Opportunities for qualified teachers of Spanish and another language exist in the high schools of Ontario. At the university level, numerous opportunities exist for teachers of Spanish language and literature. In addition, the study of Spanish, as of other modern languages, may prepare students for such careers as the foreign service, publishing, journalism, and commercial and cultural relations between Canada and Spanish-speaking countries. The development of closer relations between Canada and Latin America will extend the range of available opportunities.

Spanish may be combined with other modern languages and literatures, including English; the appreciation of mutual influences will broaden the student's understanding of each. Spanish joins in programmes for such combined specialization on an equal basis with each of the other modern languages; these require two courses in Spanish and the equivalent in the other language in each of the Second, Third and Fourth years, and at least one course in each subject in the First Year. Thus a specialist would take SPA 100 or 120 in the First Year; SPA 220Y or 221Y and either 225Y, 236S, 246F, 256Y, or 280Y in the Second Year; SPA 320Y and 420Y and two further courses in Spanish in the Third and Fourth Years. He could take further courses if he wished and if his programme permitted. Such a selection, amounting to the equivalent of seven courses, would qualify him for entry into a Type A course or Graduate Studies in Spanish. At present, Type A certificates may be gained in English and Spanish, and French and Spanish.

PORTUGUESE

Portuguese, the language of Portugal and of Brazil, is spoken by more than one hundred million people on four continents: Europe, Africa, Asia and America. Twenty percent of all residents of the Western Hemisphere are Brazilians, who attest to the truth that one out of every five Americans — North, Central, South — speaks Portuguese as his native language.

Portugal's literature began on a high note in the twelfth century, and her discoveries in the Renaissance led her to all corners of the globe. In the last two decades Portugal has given to Canada many thousands of new citizens; and Brazil is attracting the attention of Canadians through her vast potentials as a land of culture, of natural resources, and of industry.

It is with Brazil that the Portuguese studies at the University of Toronto are particularly concerned, although the outstanding European heritage is by no means forgotten. Through small classroom and language laboratory groups, the introductory course (PRT 200) offered in Second or Third Year provides basic instruction in grammar, conversation, reading and writing. The second course (PRT 420) offered in Third or Fourth Year is an introduction to the wealth of Bra-

zilian literature: poetry, prose and drama. In addition, a non-credit rapid-reading course in Portuguese (PRT 195) is offered without prerequisite to staff and students in any Division of the University.

Portuguese 200 and 420 serve the programme in Latin American Studies and any student, specializing or not, who may wish to begin a study of a new language in a higher year.

LINGUISTICS

Director, Centre for Linguistic Studies: Professor Martin Joos
Undergraduate Co-ordinator: Professor J. J. Chew

Office of the Centre: 928-3479
Co-ordinator: 928-3298

Linguistics as an undergraduate study is a newcomer to the Canadian scene. It was established at the University in 1968 in response to student demands. Linguistics is not "language study" — it does not teach a single language or literature — there are language departments for that, and the Department of Linguistics does not intervene in their work.

The aim of Linguistics is to develop a worthwhile understanding of how all languages work, and of how different languages use disparate means for the same effects. The theme is the variety and unity of human language. The method is exploratory. Ultimately, the native language (in our case English) is to be explored in detail, not by studying books about it but rather by examining what people actually say and how they say it and what effects result from various ways of saying things. But that analysis of English is possible only for someone who has learned how to look at his own language from an unprejudiced point of view — from outside it, so to speak. (Otherwise the exploration of one's native language is rather like trying to keep a fire in a wooden stove.) The student in elementary linguistics learns a method for exploring any language, and practices it on a variety of materials, English and other.

Undergraduate Linguistics is justified principally as a normal component of a liberal education. It is naturally available as preparation for graduate study towards the M.A. and Ph.D. degrees, either towards other professional work and teaching where some training in Linguistics is increasingly recognized as important, or towards work and teaching in Linguistics itself, where the demand for trained linguistics experts has exceeded the supply for the past thirty years and will long continue to do so. Toronto undergraduate Linguistics will serve as such pre-professional training.

The principal aim is to make a contribution to a liberal education within the undergraduate years, an enrichment of the preparation for civic life and leisure and for a broad spectrum of professions, notably the civil service, commerce, diplomacy, journalism, law, politics, and teaching, even the teaching of Chemistry but of course more obviously the teaching of English, languages, and social studies. The courses are designed and arranged in a flexible sequence with an aim to making any allowed combination a rewarding experience. This may be seen as the service of Linguistics to those who seek a liberal education. But no course is reserved to those students alone, and none is reserved to specialists.

There is no fixed programme for specializing in Linguistics alone. Instead, appropriate four-year programmes are created (with advice when asked for) by the students, who can draw upon Anthropology, English, Mathematics and Computer Sciences, Modern Languages, Philosophy, Psychology, Sociology, etc. The total number of Linguistics courses in which a student may enrol in three or four years is limited to eight and five or six is the normal Linguistics component in a combined specialization programme. It is advisable to establish, as early as possible, advanced reading competence in two European languages other than English, usually including French.

Studies required for gaining admission to the one-year M.A. programme in Linguistics (or the First Year of the three-year Ph.D. programme) can be completed within any three undergraduate years. The Linguistics requirements are: JAL100, 228F & 229S, 230, 326 (or the basic course EAS100, EAS120, ISL216, NES142), and two other LIN courses: in substitution for these latter two, permission is regularly given to substitute from ANT220, PSY305F, etc.

MATHEMATICS

Chairman of Department: Professor G. F. D. Duff
Undergraduate Secretary: Professor R. Wormleighton

Departmental Office: 928-3320

Mathematics historically was concerned with concrete notions of space and number. From these concrete notions have evolved such abstract ideas as "set" and "group" which form the subject matter of contemporary Mathematics, and Mathematics today may be considered as the art or science of making deductions from given statements. The theorems themselves and the methods used to make them come within the scope of Mathematics, while the original statements (hypotheses) largely lie outside. The observation that the results deduced apply to any collection of objects and relations that satisfy the hypotheses is the key to the immense power and surprisingly wide utility of Mathematics.

The pure mathematician is interested in abstract mathematical structures in their own right. He is guided by considerations of taste, beauty, and rigour and may view his subject as an art. The main fields of pure Mathematics are algebra, analysis, geometry, and topology.

The applied mathematician is more interested in how he can use those structures to study some aspect of the world around him. Applied Mathematics, originally used to describe the application of Mathematics to certain classical fields of Physics, today includes also such fields as communication theory, numerical analysis, and the theory of games. Such areas as machine languages, and logic and automata form part of the rapidly growing subject of Computer Science. Originally used to describe the collection and tabulation of records required for conducting the affairs of a State, Statistics today is a discipline concerned with the production and assessment of quantitative evidence. Actuarial Science includes such topics as the theory of compound interest, and the application of probability theory to the hazards of survival. Although historically the main applications of Mathematics have been to physical sciences, contemporary Mathematics has significant utility for nearly all sciences, and for such diverse subjects as Economics and Linguistics. Mathematics is the language of precise thought.

There are then many different motivations for the study of Mathematics. To the humanist, Mathematics is part of the mainstream of human culture. To the scientist, engineer, or social scientist it is an impor-

tant working tool. To the mathematician, it is an end in itself. The Department of Mathematics attempts to provide courses to suit all these diverse viewpoints.

The professional mathematician is most likely to find employment in universities, in the civil service or in government laboratories, and in financially or technologically oriented business firms. Research positions require post-graduate study. Such fields as teaching, computing, applied statistics, and actuarial science offer opportunities for B.Sc. graduates. A training in Mathematics has traditionally been a strong preparation for careers in law and business; today it is also an excellent foundation for further work in a wide variety of fields in the sciences and social sciences.

The sequential nature of Mathematics means that prerequisites are essential in many courses and steady work is usually required. Students are advised to consult the prerequisites of courses in which they may be interested in subsequent years. Where prerequisites are stated, they may be waived for students who can demonstrate adequate knowledge. Students who wish to have prerequisites waived are advised to consult the Undergraduate Secretary two months before the beginning of term.

Students who are contemplating graduate work in Mathematics, Applied Mathematics, or Statistics are advised to follow the Programme in Mathematics. The Programme in Mathematical Studies is designed mainly for those who, after graduation, wish to use their mathematical training in other fields; it provides rather more flexibility and a correspondingly reduced emphasis on mathematical analysis. The Programme in Mathematics for Teaching is less concentrated, but also satisfies the Type A requirements of The College of Education. The Programmes in Actuarial Science and Computer Science are designed to meet the specialized requirements of those fields. For students with interdisciplinary interests, programmes in Chemistry and Mathematics, Mathematics and Biology, Mathematics and Economics, Mathematics and Linguistics, Mathematics and Philosophy, and Mathematics and Physics are available. Students contemplating enrolling in these programmes of specialization should consult the requirements given elsewhere. These programmes are of course only suggestions for specified purposes: they are not the only programmes combining

MATHEMATICS

the subjects indicated by their names. Students are encouraged to make up their own combinations of courses to meet their own needs.

The Department offers a wide variety of first year courses. Students with both Math A and Math B (and marks of 75%) in Grade XIII who are contemplating a programme of specialization in Mathematics (including Applied Mathematics and Statistics) are advised to take MAT 140 and MAT 150, while PHY 120 is recommended also. Students with the same background who can take only one course in Mathematics should elect MAT 139. Students with MAT 139 who wish to follow the Mathematics Programme should consult the Undergraduate Secretary: they may be advised to defer MAT 250 until Third Year. MAT 135 and MAT 134 are designed for students interested primarily in science or social science (the two are equivalent for prerequisite purposes), and are less intensive than MAT 139 or 150. Students with less than 66% in Math A are advised not to select these courses. MAT 130 is a less demanding calculus course that still provides an adequate foundation for further work. MAT 110 is a

special version of MAT 130 designed for those without Grade XIII Mathematics. MAT 120 covers a selection of elementary topics in Algebra, Calculus, Probability and Statistics and hence is not recommended for students who may wish to elect further courses in Mathematics. MAT 100 is designed as a cultural course, particularly for students in the humanities or other non-science fields who seek to learn something about Mathematics as a discipline rather than gain a training in Mathematics. CSC 108 and CSC 148 are half courses in programming available in both F and Y versions: CSC 118S and CSC 158S are subsequent courses that study the relation between computers and society.

There are too many higher year courses to describe in detail here. MAT 230, 234, 235, 239, 240F and 250 are continuations of the courses with numbers 100 lower. MAT 220 and 320 are continuations of the 'cultural' course MAT 100. The following courses are particularly worthy of consideration by students with the indicated interests who do not wish to follow a named programme.

| Interest | ACT | APM | MAT | STA |
|---------------------|------------|---------------------|------------------------------------|-----------|
| Non-Specialists | | 236S, 331F, 336S | 225, 300, 314F, 319S, 325, 364F | 232 |
| Social Sciences | 223F, 233S | 336S, 451F | 234, 314F | 232, 342S |
| Biological Sciences | | | 225, 235 | 242, 332F |
| Physical Sciences | | 246S, 331F, 441 | 235, 239, 244F | 242 |

Appointments for individual counselling should be arranged with the Undergraduate Secretary of the Department.

MUSIC

Courses Sponsored by Members of the
Faculty of Music

Enquiries: 928-2633 or 3740

The Music courses in the Faculty of Arts and Science present the study of Music as one of the liberal arts, drawing upon concepts of musical analysis and theory to allow exploration in depth. As the approach to musical style is historical and humanistic it differs in some aspects from courses designed for composer and performer. Professional performing skills are not required for such a study.

The course offerings of the Department of Music fall into two categories: those requiring demonstrable proof of some theoretical training and those that require no prior training whatsoever.

Regardless of training or lack of it all students availing themselves of Music offerings will start out by taking MUS 100. Those who lack the above mentioned training, or do not choose to pursue more specialized musical studies, may proceed to such courses as MUS 223, 323 and 423. On the other hand the students who are qualified and who wish specialized courses will choose MUS 120 as well as MUS 100 and proceed to MUS 222 and 240. Armed with these subjects as prerequisites a wide range of musical areas becomes available for the student.

To graduate as a specialist in Music a student will take a minimum of six music subjects, these being MUS 100, 120, 222, 240, 322 and 422, in addition to which at least four courses or the equivalent in half-courses are required, GER 130/105, HIS 100, ITA 120Y/100/LAT 100, PHL 208F/209F, 318S, and, if GER 105 was taken, GER 205.

Qualified students, whether aiming at specialization or

not, are encouraged to take further courses in Music both in the historical area, there being a rich choice of electives from which to draw, and the theoretical (counterpoint, orchestration, musical acoustics, etc.).

Students who wish to qualify for the Type A certificate in high-school Music or to obtain training as performers or composers are referred to the Calendar of the Faculty of Music.

NEAR EASTERN STUDIES

Chairmen of Departments:
University College: Professor R. J. Williams
Victoria College: Professor E. G. Clarke

Departmental Office: 928-3181

The Department of Near Eastern Studies is concerned with the story of man's first breakthrough from neolithic savagery to settled urban life, and the subsequent development of high civilizations in Egypt and the Tigris-Euphrates valley, and later in adjacent areas, down into the Christian era.

The point at which the Department is content to let other departments, such as Islamic Studies or History, take over this story is not easy to define. For the Egyptologist and the Assyriologist, A.D. 600 — the eve of the Islamic age — is a liberal limit. But some of the languages spoken in the older Orient, such as Hebrew or Syriac, continued to be used, at least in scholarly circles, long after this date, and important new contributions were made to their literature, so that the Hebraist and Syriacist must extend the limit to include the Middle Ages. Hebrew, indeed, has been revived within the past century as a living language, and thus in the case of Modern Hebrew the concerns of the Department of Near Eastern Studies come right down to the present day.

The geographical scope of Near Eastern Studies is easier to define. It comprises the area of modern Egypt, Israel, Jordan, Lebanon, Syria, Turkey, Iran, Iraq, and the Arabian peninsula, although the scholar in Near Eastern Studies may find his interests leading him to the Indus Valley, to Ethiopia, or, following the peregrinations of the Jewish people, to Europe.

Near Eastern Studies clearly include a wide variety of disciplines. There is Archaeology, both for the prehistoric period when the archaeologist alone can reconstruct the story of man's doings, and for the historic

periods when archaeologist and philologist work together, combining the evidence of tell and text to restore the fuller tale. The Near East is a particularly attractive area for the archaeologist because of its abundance of buried materials and the fact that it was here that man pioneered the path from barbarism to civilization. Archaeology includes not only the study of humble potsherds and crumbled walls, but of reliefs and wall paintings, architecture and sculpture, and other types of ancient art.

There is also Philology, the study of languages and documents with curious scripts — Egyptian with its hieroglyphs, the Babylonian and Assyrian dialects of Akkadian with its cuneiform writing, Hebrew, Aramaic and its graceful sister Syriac, and Hellenistic Greek (some other languages are taught only in the School of Graduate Studies). A knowledge of these languages is a key to the first-hand study of literatures far older than the Iliad or Odyssey. Egyptian stories like those of Sinuhe or Wen-Amon, or Babylonian compositions like the Gilgamesh and Creation Epics, hold honoured places in the history of world literature. The best known body of literature from the ancient Near East is, of course, the Jewish Bible, the Christian Old Testament, echoes of which are heard in all the great literatures of western civilization.

The findings of archaeologist and philologist provide the raw materials for the historian, who synthesizes the multifarious data and traces the broad movements of progress and regression which the student of the ancient Near East must discern if he is not to be overwhelmed by the vastness of the time span with which he must reckon.

Why study civilizations so remote in time and place from one's own as those of the ancient Near East? The only adequate answer is that one finds them inescapably fascinating. But what good do such studies do? They provide the background and the depth in one's field of vision that are necessary if one would see western civilization in true perspective. Anyone curious about the deepest foundations of our own society should consider taking at least NEH 111, and perhaps also a sequence in Near Eastern History in his Second and Third Years. The student interested in the westward shift of power from the Near East to Greece and Rome, and then to Europe, might combine courses in Near Eastern history with others in Greek and Roman history and medieval European history. A person interested in the science of Archaeology can hardly omit to take at least one of NES 271, 272, or 281 which can be combined with courses in Anthropology and Fine Art. Someone particularly interested in the Hebrew scriptures, the continuing fount of inspiration for both Judaism and Christianity, should take NES 141 and 241 however distant their other studies are from the Near East.

The student who wishes to savour the taste of an original Near Eastern text with the full pungency that no translation can ever convey should tackle a language, such as Hebrew, either classical (biblical) or modern. A person specially interested in Judaism or early Christianity might add Aramaic or Hellenistic Greek — the languages of a large corpus of Jewish literature and of the New Testament respectively — to his study of Hebrew in his Second Year. Egyptian may be taken in the Second Year with no prerequisite, but some prior knowledge of Hebrew or Arabic is required for Akkadian, whose clumsy writing system does not adequately express some important features in the structure of the language, which must be reconstructed by analogy with other Semitic languages. A student who plans a career in Iraqi Archaeology and who wishes to study Akkadian might consider it more practical to take Arabic rather than Hebrew as his first Semitic language.

A student wishing to specialize in any of the generally recognized fields of Near Eastern Studies, such as Egyptology, Assyriology, Hebrew Studies, Near Eastern History, or Near Eastern Archaeology will find the regulations for the constitution of an appropriate pro-

gramme sufficiently flexible to allow him to select courses directly relating to his interests, with a minimum of constraint to take subjects he may consider uncongenial or irrelevant. His choice of subjects, however, will best be made with the advice of the Department. He would do well to acquire a knowledge of German as early as possible, and not to neglect his French. Some knowledge of Anthropology will be useful by teaching him how best to approach archaic, non-western societies. A course or two in Linguistics will stand him in good stead.

An interdisciplinary programme in Ancient History can be created by combining courses in Near Eastern History with courses in Greek and Roman History offered by the Classics Department, preferably in conjunction with a course in Greek or Latin and another in a Near Eastern language. A programme in Archaeology can be formed by combining courses in Near Eastern History with a selection from the offerings of Anthropology and Fine Art. The student seriously interested in mediaeval Judaism should combine his study of Hebrew with as many as possible of Arabic, Islamic History and Institutions, Philosophy, Mediaeval European History, Latin, and Spanish or Italian. One interested in modern Hebrew literature should aim at a wide acquaintance with European literatures, particularly Russian and German.

To what kind of careers do programmes specializing in Near Eastern Studies lead? A good background in Hebrew and Near Eastern History will be of great value to candidates for the Rabbinate or Christian ministry. Other programmes naturally lead to careers in museum work, archaeology, or university teaching and research.

The student who has made up his mind to proceed to a graduate degree in a particular area of Near Eastern Studies will obviously want to follow an undergraduate programme in that same area. But graduates with little background in their desired field of specialization are admitted to the Graduate Department of Near Eastern Studies, although their training must take longer than in the case of a person with a fuller background. The undergraduate uncertain of where his interests really lie should therefore not rush into a premature specialization in this field.

PHILOSOPHY

Chairman of University Department: Professor J. G. Slater
Undergraduate Secretary: Professor L. M. G. Smith

Enquiries: 928-3311

College Departments:

Victoria College Chairman: Professor F. E. Sparshott

Trinity College Chairman: Professor G. Edison

St. Michael's College Chairman: Professor L. E. M. Lynch

Undergraduate Secretary (S.M.C.): Professor B. F. Brown

The Greek words from which "philosophy" is formed mean "love of wisdom" and all great philosophers have been moved by an intense devotion to the search for wisdom. What distinguishes philosophy from the physical and social sciences is its concern not only with the truths which are discovered by means of specialized methods of investigation, but with the implications such discoveries have for individual human beings in their relations with one another and in their understanding and appreciation of the world in which they find themselves. However, it has, in common with the sciences, an abiding interest in those basic assumptions about the nature of the physical and social world which underlie even the methodology by means of which scientists seek to explain their observations. It is from the challenge both to know and to accommodate such discoveries that the most searching and revealing philosophical questions arise.

Whatever his personal background or social position, each man has a set of beliefs about the areas of life which most concern him. But a philosopher is not content to accept, uncriticized and unanalyzed, either the conventional judgements of common sense or the current bases of science and scientific method. The philosopher calls into question even the most cherished of these beliefs, attempting to show that they are either well- or ill-founded, knowledge or false opinion. But the value of the endeavour lies in the questioning itself and not in the admittedly impossible task of coming to a complete understanding of the foundations of our knowledge.

Despite its intrinsic merits and its value as a means of developing critical awareness, there is no obvious practical application to which the student of Philosophy can direct his studies. The discipline is taught exclusively at institutions of higher learning, though it is hoped that it will, in the near future, be possible for graduates of a programme specializing in Philosophy to qualify for entry to a Type A certificate programme at The College of Education. There will, of course, be some students who will want to pursue graduate work

in Philosophy, and to become professional philosophers, and many who will want to do further work in fields such as Law or Criminology where some knowledge of Philosophy is a distinct advantage. Many students whose primary interests lie in other areas, such as Classics, Fine Art, Music, Literature, Physical and Social Sciences, and Mathematics, will want to do some work in Philosophy, at least in those areas related to their own fields; e.g., Greek Philosophy, Aesthetics, the Philosophy of Music or of Literature, and the Philosophy of Science or of Mathematics.

A glance through the courses offered in Philosophy will inform any prospective student of the names of some of the philosophers studied, and the special areas investigated in the Philosophy Programmes at the University of Toronto. A dictionary or encyclopedia will supply standard definitions of logic, ethics, epistemology and metaphysics. But whoever wants to know what Philosophy is must do it. A student can learn a great deal from a study of what has been written and thought by such philosophers as Plato and Aristotle, Augustine and Aquinas, Locke and Hume, Descartes and Spinoza, Kant and Hegel, Mill, Russell, and Wittgenstein, Husserl, Sartre, and Heidegger. But such study is, nevertheless, only an important preliminary. To read without bold and critical thinking is next to useless.

In order to foster as much interdisciplinary work as possible, and to allow maximum flexibility to students whose interests are not defined in terms of the traditional disciplines and areas of study, the Philosophy Programme is defined as the successful completion of at least 12 half-courses in the Philosophy of the student's choice from those numbered 200 and above. Students are strongly urged to balance their programme with courses in other disciplines. To ensure that they are at least minimally prepared for entry into the best North American and British graduate schools, students planning to go on to graduate study in Philosophy are strongly advised to include within their programmes at least two courses in Logic (chosen

PHILOSOPHY

from 206, 207, 327, 328, 329, 330), two tutorial courses in the History of Philosophy (chosen from 307, 308, 309, 310,) and two non-historical tutorial courses (those currently offered are PHL 314, 315, 334). PHL 100, the introductory course offered in the First Year, is intended to serve as an indication of the range of topics, and methods of approach, covered in the discipline. It is not a prerequisite for any further courses. However, students who think they might wish to do senior work in Philosophy are advised to take it. Many third- and fourth-year courses require at least one course in Logic as a prerequisite; thus, students who are planning to continue taking courses in philosophy are strongly advised to take Logic in the Second Year (recommended 206).

At St. Michael's College, Philosophy is a college subject. Most of the courses offered by the College Philosophy Department are of full-year length. For reasons similar to those given above, the Philosophy Programme at St. Michael's College is defined as six full courses or their equivalent, chosen from those numbered 151, 250 and following, at least three of which must be from those numbered 350 and following, together with a total of four full courses in other disciplines. Students planning graduate study in Philosophy are advised to take the course in Logic (PHL 251), at least one course in the History of Philosophy (PHL 151, 261-271), and at least one of PHL 354 or 355. PHL 150, the introductory course offered in the First Year, serves the same function and has the same place in the St. Michael's College Philosophy Programme as does PHL 100 in the University Philosophy Programme.



PHYSICS

Chairman of Department: Professor J. M. Daniels

Associate Chairman, Undergraduate Studies: Professor R. L. Armstrong

Departmental Office: 928-2936

Physics is the study of material phenomena at its most fundamental level. Everyone has heard of many of the classes of natural phenomena in this category — heat, electricity and magnetism, light, and atomic physics, for example. The basic principles of all of these subjects were discovered by people who considered themselves physicists (or perhaps natural philosophers), and at the time of their discovery were considered a part of Physics. To many physicists the extension of the frontiers of such fundamental knowledge is an end in itself. Yet almost all of these have given rise to engineering or technological developments, and in many cases are now considered separate branches of engineering on their own. Within the last thirty years, for example, the whole of electronics and nuclear energy has developed from Physics, and many of the techniques pioneered as part of Physics, such as x-ray diffraction, magnetic resonance, and spectroscopy, are now standard tools in Chemistry, Biology and other sciences. For this reason some knowledge of Physics is considered necessary in order to pursue a career in almost any other science. Physics is a pioneering science.

Another point which must be appreciated is that most physical phenomena can hardly be described in other than mathematical terms and a good knowledge of Mathematics is essential for a proper understanding of Physics, so much so that almost one-half of the courses forming a programme that provides for a specialized training in Physics must be in Mathematics. Thus the specialist programme in Physics consists of a set of core courses, including both Physics and Mathematics courses, which are considered to contain the basic knowledge which ought to be possessed by anyone who intends to specialize in Physics or any related subject. Standing in Grade XIII Mathematics and Physics is required to enter the Physics specialist programme via PHY 120, but without these the programme may be entered via PHY 130 in the First Year. The specified courses comprise about half of the courses in the full programme in the Second, Third and Fourth Years at this University, and the student is able to take a number of additional courses in Physics which are offered, and which are essential if he contemplates graduate work in Physics. Alternatively, the student may, in addition to the core, take courses in related subjects either to acquire specialization in some other subject as well, or to broaden his back-

ground. For example, the specialist programme in Astrophysics consists of the Physics core plus a number of courses in Astronomy normally taken in the Third and Fourth Year; the same applies to the Chemical Physics programme. There is a Mathematics and Physics specialist programme designed for those who intend to continue in Theoretical Physics. Other programmes which may be easily constructed include Physics and Geology, Physics and Biology. In choosing his programme the student should always bear in mind what his future aim is and choose his courses accordingly. He should remember that Physics is one of the basic sciences, and that one of the advantages to be gained by study of Physics should be an ability to turn in many directions.

For those who do not wish to specialize in Physics but nevertheless require basic knowledge of the subject, the Department offers a two-year programme (PHY 130 and PHY 230), which is a survey of most of Physics and which can be followed by many of the other courses offered by the Department. Such a programme, while not having the same degree of intensive specialization as the Physics Programme, is a useful alternative and can lead to a teaching certificate if the programme includes the number of Physics courses necessary for entrance to the Type A certificate programme at The College of Education. In addition, the Department offers two one-year courses — PHY 140, which is a course of selected topics for scientists (and which can be followed by PHY 230 if desired), and PHY 101, which is a course about Physics rather than a course in Physics intended for those who wish to become acquainted with physical ideas and thought rather than to learn Physics as a subject.

What career opportunities are there after following a programme of specialization in Physics? This is very difficult to predict. In the last ten years or so, the main employers of Physics graduates have been universities (which have recently undergone a large expansion) and research institutes (mostly under government control and sponsorship). However, more and more positions are becoming available in private industry. Positions in industry seem to be for the most part in developing industries — such as computing, or nuclear energy — where no definite pattern of employment has yet grown up. For a research position a graduate degree (M.Sc. or Ph.D.) is very desirable.

POLITICAL ECONOMY

Chairman of Department: Professor W. T. Easterbrook

Departmental Office: 928-3334

COMMERCE

Supervisor of Studies: Professor S. G. Hennessey

Commerce courses offer opportunity for studies in economic organization, accounting, industry, trade, the legal environment of business, finance, investments, production, marketing, taxation, administrative theory, business problems and related topics.

Studies in Commerce are particularly appropriate for students who plan to assume administrative or management responsibilities on graduation, to undertake graduate studies in Economics, or, to pursue a professional career in Accounting, Actuarial Science, or Law.

Until the academic year 1969-70, Commerce subjects were available, primarily, to students in the programme in Commerce and Finance leading to the degree of Bachelor of Commerce. These studies, established in 1910, have required extensive work in two areas, Commerce and Economics. The curriculum has been designed to provide a broad and liberal education and not merely a technical training for students entering business. Most graduates are to be found in senior positions in a great variety of enterprises including the professions, the financial community, industry, insurance, government and the universities. Their careers reflect the general objectives of the programme: the development of a comprehensive awareness and the provision of an education that leads to meaningful participation in and contribution to our society.

Commerce courses are now generally available on the St. George campus. At the same time, the Commerce and Finance Programme continues to require serious studies in the joint areas of Commerce and Economics and leads to a Bachelor of Commerce degree. The general objectives of the programme have not changed. Students who choose to specialize will have a wide choice of options in each year, but will be required to probe in some depth in the subjects that they establish as their principal interest.

Subject to the necessity of placing limitations on numbers, all first-year students in the Faculty will be able to take two Commerce courses: COM 101 (Industry and Trade), and COM 100 (Financial Accounting). In this way it will be possible to gain some useful im-

pressions that will help the student to decide whether to specialize in Commerce and Finance, to take some Commerce courses as part of their programme in later years, or to take all courses in disciplines other than Commerce. In their First Year, students will be able to explore such interdisciplinary possibilities by taking courses, for example, in Actuarial Science, Economics, Geography, Mathematics and Political Science.

First-year students who have in mind specialization in Commerce and Finance are strongly advised to take COM 100 and 101, and, in addition, ECO 102 (Introduction to Economics), and MAT 134 (Calculus for Social Scientists). If they do not take these recommended courses they will be handicapped in their choice of subjects in their upper years; nevertheless, students without this first-year background can enter the programme in their Second Year by satisfying the course requirements indicated below.

Past experience indicates that only students with at least a high third-class standing in First Year should attempt these specialized studies. Those who do not take the first-year options recommended in the previous paragraph must take COM 100 and MAT 134 in the Second Year, and so will have limitations on their choice of other courses. Similar limitations will follow into the Third Year of the programme.

There are a number of ways in which students specializing in Commerce and Finance can arrange their choice of courses:

- (1) With emphasis on Commerce: the principal choices are available in Third and Fourth years; some students who have done this go directly into business, law, and the government service; others do graduate work in business administration.
- (2) With emphasis on Economics: here again the real specialization comes in Third and Fourth years; there are a number of sub-choices within this field — in mathematical economics and in economic theory, for example. Many of the best students have so chosen and gone in to graduate studies in Economics, very often leading to University academic careers.
- (3) With emphasis on Accounting and Finance: many of these people have made a career in accounting or in the financial world; typically, a third or so of the class has been so inclined in recent years.

The current re-structuring of the accounting profession's qualifying and educational requirements will probably make this emphasis more attractive in the future.

- (4) With emphasis on Actuarial Science: in this way the student can combine his undergraduate studies with some progress towards qualification as an actuary; only a limited number have done this recently.
- (5) In the future, it seems likely that an increased number of students will choose a balanced selection of courses in Commerce, Economics, and the wide range of other disciplines that are available; those who so choose will be able to go in almost any direction, including entrance to a Type A certificate programme of The College of Education.

While these indicate the main choices made by students, they are merely suggestive; it should not be assumed that one's future career will be severely limited by the choice of one of them. The flexibility of the Commerce and Finance Programme, allowing special emphasis on a number of subjects, promotes the growth and development of students who wish to achieve an understanding of our society and who intend to provide responsible leadership in it.

ECONOMICS

Supervisor of Studies: Professor A. Kruger

Economics is a social science; that is, it is an exploration of the behaviour of people in society. Economics studies a particular range of human behaviour that has a strong influence on the structure, well-being, and development of a society.

Much of human activity is directed toward the satisfaction of material wants. In many areas of the world, the greater part of human effort must be directed toward meeting the most elemental demands for food, clothing and shelter. Even in technological-advanced societies, where these basic requirements can be met with comparative ease, the human desire for more goods appears never to be fully satisfied. In consequence, every society — regardless of whether it is capitalist, socialist, or communist in political orientation — is both competitive and co-operative. It is competitive because its members contend with one another to satisfy their individual wants out of a limited supply of productive resources. It is co-operative because the greatest possible supply of goods is available when the activity of producing them is co-ordinated and organized. The lives of human beings are very largely linked together into societies because of this need for co-operative action.

Economics studies the social problems and issues that arise out of this mixture of competition and co-operation in every society. In recent years, for example, it has been particularly concerned with the diagnosis of two separate phenomena: mass unemployment, and inflationary price increases. It explores the roles of government, of private business, and of individual consumers in relation to these and similar problems. Economics is similarly concerned with the question of growth, from an "underdeveloped" to a materially-advanced society. It asks how this growth comes about, and it asks what new problems arise as new growth is attained. Economics deals with any issue arising out of the conflict between human demand for material goods and a limited supply of resources to satisfy those demands.

Because Economics studies human behaviour, it has links with other disciplines in the social sciences. A student who so desires can join his courses in Economics to courses in Political Science or in History, for example. It is in fact possible to specialize in Political Economy, a combination of Economics and Political Science.

Economic theory now makes considerable use of Mathematics in some of its inquiries. A student who chooses to specialize in Economics should take one basic course in Mathematics (MAT 134 is recommended). If desired, more such courses may be taken; and several Economics courses draw quite heavily on mathematical analysis. However, these courses are optional, offered only for those students whose interests happen to extend along mathematical lines.

Because of the advances in economic theory, an undergraduate degree cannot take the student sufficiently far to make him a professional economist. For that purpose, graduate work is necessary — and one objective of a programme in Economics is to ready those students who want to go on to graduate work in Economics. Graduate work, however, is highly specialized, and the undergraduate programme is not designed solely to feed students into graduate school. Those students thinking of graduate work should seek advice from the Department concerning their choice of courses.

Undergraduate training in Economics, as in other disciplines, is directed toward the goal of a liberal education. Its purpose is to familiarize students with the discipline of economic thinking, and so to equip them for intelligent appraisal of contemporary economic problems. It is intended to make students aware of the nature of economic science, and of the directions in which economic theory is currently moving. It should give students a solid preparation for training in such fields as Law, or for entry into business, industry or government.

POLITICAL SCIENCE

Supervisor of Studies: Professor A. Kruger

The study of Political Science at the University of Toronto is wide-ranging and diverse, including such fields as political theory, Canadian government international relations, and the detailed examination of political life and processes in numerous foreign societies (developed and developing). Students selecting courses in Political Science may be thinking of a career in public service; some may seek a more profound understanding of political thought and political processes, perhaps for an eventual career in teaching; others may simply wish to know more about the world in which we live. The course offerings in the Department are designed to meet these needs: specialized courses (often with a number of prerequisites) for those who require detailed understanding of particular fields, less specialized (though no less rigorous) courses for those seeking a broad background in politics.

Courses in Political Science dovetail with programmes in most of the other disciplines of the social sciences and the humanities: Economics, Sociology, History, Philosophy, and Psychology. A student interested in Canadian studies or urban problems, for example, would be well advised to choose courses from all these disciplines, as would someone interested in international affairs or foreign area studies. A student planning graduate work in the social sciences should

seek to obtain a basic understanding of each of these disciplines. Students who plan advanced work in Political Science are strongly urged to prepare themselves with a solid background in Political Theory and Statistical Methods, for these are the tools of the profession.

Programmes of study of Political Science are very flexible and contain no required core courses in Political Science. Students seeking a genuine understanding of the discipline are strongly urged to take at least two courses in Political Theory. Students are further advised that POL 100 (Government of Canada), is a prerequisite for many advanced courses in the field of public administration and Canadian government, and that either POL 101 (Introduction to Political Science) or POL 200 (Political Theory) is a prerequisite to most advanced courses in Political Theory.

In planning his first-year programme, a student may choose any five courses offered by the Faculty of Arts and Science to first-year students. In Political Science, this includes most courses numbered 100 to 399, although 200- and 300-numbered courses are intended primarily for second- and third-year students. A typical first-year programme might include one or two courses in Political Science, plus a combination of courses from the following disciplines: Economics (ECO 100 is strongly recommended), English, Geography, History, Mathematics, Philosophy, Psychology, Sociology, a foreign language, or a course in the natural sciences.



PSYCHOLOGY

Chairman of Department: Professor G. E. Macdonald
Undergraduate Secretary: Professor A. N. Doob

Departmental Office: 928-3407

Psychology is that branch of science which seeks to understand the behaviour of organisms, both human and infra-human, normal and abnormal. Psychology accepts the individual organism rather than the collective or group as the unit of analysis. It attempts to determine how organisms perceive, how they develop and change over the course of their life histories, how they choose among alternative courses of action and, particularly with humans, how they relate to their fellows and to social institutions. The courses in this Department are designed to further an awareness of the fundamental principles of Psychology, its research findings, and the means by which psychological knowledge is acquired. The emphasis, thus, is upon scientific inquiry, rather than upon the development of service skills. Experimentation, laboratory work, and Statistics are considered fundamental tools to basic Psychology.

As a career, today, Psychology is a heterogeneous and far-flung enterprise, and psychologists are far from agreeing on the problems they should study, the methods they should employ, or the theories that should claim their allegiance. As a research science, psychologists working in the context of universities, research institutes (public and private), and large corporations, investigate basic behavioral phenomena in areas such as physiological psychology, comparative (animal) psychology, developmental psychology, the psychology of individual differences, clinical psychology, and social psychology. Quite often research psychologists collaborate with scientists in other fields to work on particular problems. For example, with medical scientists they may jointly work on such problems as the behavioral effects of drugs, the behavioral effects of sensory deprivation (through prolonged isolation), and the application of conditioning to modifying behavior disorders. With engineers, they may examine the effects of memory, perception, fatigue, etc., on skilled performance of one sort or another. In more "applied" settings psychologists are involved in such fields as Law, Medicine, Education, Industry, and Religion.

It should be noted that students who are interested in Psychology as a career within any of the aspects suggested above, must be prepared for a period typically ranging from three to four years of graduate training. Gone are the days when the B.A. was sufficient to land an exciting and creative position in some area of

Psychology. Our Department, consistent with departments of Psychology across North America, provides courses which represent an exposure to the basic subject areas of contemporary Psychology and does not provide for the direct training of professional service skills. The courses may be of value both to the potential specialist within Psychology as well to students planning careers in business and industry, in the medical and legal professions, in teaching, in nursing, and in social work. In all cases, however, further graduate work or on-the-job training, or both, are required.

To guide the student wishing to specialize in the field of Psychology as an undergraduate, the Department has set forth certain guidelines. First, a minimum of seven courses (equivalent to fourteen half-year courses) in Psychology should be taken. This relatively small minimum number of courses required underscores this Department's belief that even the student specializing in Psychology should be encouraged to take a variety of courses in other areas among the humanities, social sciences, and natural sciences, but at the same time the student may take more than the minimum of seven, if he wishes. Second, the Department recognizes that the undergraduate specializing in Psychology should, in addition to content courses, have some exposure to laboratory techniques, research and statistical methodology, and the experience of conducting a research project. Hence a laboratory course (PSY 320, 321 or 322) a statistics course (PSY 200, 201) and a research project (PSY 400) must be included in the minimum of seven courses in Psychology. Third, although no specific course prerequisites are instituted, recommended basic preparation for each course is indicated in the course descriptions so that the student is appropriately advised, but without restricting flexibility. In addition, certain courses may have to be restricted on a priority basis relating to the year of the student in order to avoid overcrowding. Normally a student seeking to specialize in Psychology would take the introductory course in his First Year and take additional Psychology courses in his Second, Third, and Fourth Years, reserving his thesis (research project) to his Fourth Year. It should be noted that any student, even if he is not specializing in Psychology, may take most if not all of the Psychology courses offered and may, in fact, defer the decision to specialize in Psychology as long as he can eventually satisfy the minimum requirements for specialization.

RELIGIOUS STUDIES

Chairman of the Combined Department: Professor L. S. Dewart (St. Michael's College)

Chairmen of Departments:

Victoria College: Professor the Reverend K. J. Joblin

Trinity College: Professor G. A. B. Watson

St. Michael's College: Professor the Reverend A. Gibson

University College, Department of Near Eastern Studies: Professor R. Williams

Enquiries: 928-3926

Religious Studies, as an academic discipline, is based upon a broad concept of the fundamental significance of religion in the life of the individual person and of society. The intention of the Department is to provide students with an opportunity to deepen their understanding of man and his institutions by exploring in various ways the ultimate questions and convictions which have affected the foundations of his life throughout history.

The breadth of the concept of religion which is assumed in the academic approach to it is reflected in the diversity of perspectives and methods involved in the courses that are offered by the Department as well as in those recommended from other disciplines. Furthermore, students participating in the study of religion are encouraged to bring to that study the instruments of critical and sensitive enquiry which they have developed in other areas. Using the perspectives and methods of various disciplines, separately and in combination, fundamental assumptions and questions pertaining to personal and social values and beliefs, which are too frequently excluded from other forms of enquiry, are exposed and systematically probed in an intellectual atmosphere of freedom and thoroughness.

Throughout history, man has expressed his profoundest convictions, questions, aspirations, and fears in many ways. His art, philosophy, conduct, social institutions, even his theories about the physical universe, have conveyed and illuminated his measure of himself and of the world in which he lives. From time to time these forms of expression coalesce within a particular pattern and tradition which we may identify as a "great" or a "world" religion. But along with such religions — both within them as well as outside them — are the individuals, each with his own personal convictions, values and interpretations of experience and of the symbols by which he represents to himself the ultimate concerns of life. The examination of all of this constitutes the academic enterprise which we title Religious Studies.

Those who wish to specialize in this area will find that no attempt has been made to delimit severely the direction of their enquiry. There is no one programme. Rather, students have the freedom and the responsibility of planning their own programme within the wide limits of available courses. The Department suggests to students who wish to specialize in Religious Studies that approximately half of the total number of courses they take in the Faculty be chosen from those listed by the Department, and the other half from the Faculty's offerings as a whole. Quite unique and even unlikely avenues of learning are thus possible. Faculty advisers should be consulted in shaping a particular programme.

To expand human awareness in areas which affect directly the foundations and quality of life is not easy, but in our age it is vitally important. To prepare for life, in addition to preparing for a career or for graduate study, is, among other things, to learn how to ask ultimate questions and work toward solutions. The Department of Religious Studies is committed to the encouraging of this process and to the critical and creative extension of it into areas of individual or corporate blindness.

Students who wish to continue into graduate schools of religion will find an increasingly wide opportunity to do so in North American universities, and may think of their undergraduate study as preparation for this. Needless to say, there are also opportunities to continue in schools of Social Work, Counselling, Theology, and other fields; increasingly, however, in such humanistic fields graduate schools look not at the type of discipline in which a student has been "trained" but at the depth and breadth of his undergraduate education, as such. The same, indeed, can be said of many employers.

A careful reading of course descriptions in Religious Studies will suggest to the student with more than one area of interest a number of ways in which a particular programme may be constructed, combining

selections from Religious Studies with offerings from other departments. For example, the courses listed by the Department in the calendar may be combined with courses in Philosophy or Psychology or Sociology or Political Science to create an investigation in the psychology of religious expression, the philosophical analysis of religious language, the sociological analysis of religious institutions, the political impact of religious institutions and belief, religious motivations in human behaviour, etc. Similarly, religion and the arts can be

creatively fashioned as an area of study by a selection of courses in Religion, Fine Art, Music and the literatures. By combining courses in Religious Studies, Near Eastern Studies, East Asian Studies and Islamic Studies, a variety of programmes in religious and cultural beliefs may be planned; the focus here could be achieved through language study or through works in translation. Not least important is the possibility for comparative study of religions or the study of basic religious beliefs in one or many cultural traditions.

SLAVIC LANGUAGES AND LITERATURES

Chairman of Department: Professor K. B. Feuer

Undergraduate Secretary: Professor G. Zekulin

Departmental Office: 928-4895

The Department of Slavic Languages and Literatures offers an extensive range of courses in Russian language and literature, four-year sequences in Czech (and Slovak), Polish, Serbo-Croatian and Ukrainian languages and literatures, and some advanced courses in Slavic linguistics. Within this range there are courses suitable for inclusion in a wide variety of programmes of study irrespective of whether the student has studied Russian in Grade XIII or not. Some students may specialize intensively in Russian language and literature. Others may simply wish to gain a working knowledge of Russian to aid their reading of important material in another field, as, for example, science or social science; for such purpose the two-year sequence SLA 100 followed by Slavic languages and literatures may also be included in any programme, and, in particular, even in a programme that does not contain Russian. Language study in the Department emphasizes skills in using literary materials, and it also employs oral methods, combining small instructional groups with some laboratory or conversational practice.

Students who have not studied Russian in secondary school should not consider themselves at a disadvantage when considering specialization in the Russian or Slavic field. It is still not common for secondary schools to offer Russian, and the Toronto programme in language is by itself capable of providing a very good foundation for specialized work.

Students who have studied Russian in secondary school and would like to continue it, should take SLA

121 (or SLA 201 if their chief interest lies in the natural or social sciences). If a student is inclined to begin a specialization in Russian or Slavic at the University, he should include SLA 100 (first-year Russian) in the first-year programme. Also recommended for first-year students with an interest in the Russian field, whether or not they are studying Russian language, is the course "Introduction to Russian Literature" (SLA 110), which is designed to serve as an introduction to some great works of Russian literature and to some significant questions of Russian intellectual and social development.

First-year students should also note that they may enrol for the Department's courses SLA 205, 206, 207, 208, (elementary Czech, Polish, Serbo-Croatian, Ukrainian) and also courses SLA 215, 216, 217, 218 (Czech and Slovak, Polish, Serbo-Croatian and Ukrainian literature and culture). Not all of these courses are offered in every year, so students planning to take them should consult the "Schedule" included in the Department's list of courses, and make their plans accordingly.

The Department offers two Specialist Programmes, Russian Language and Literature and Slavic Languages and Literatures. The first requires seven "core" courses in Russian language and literature, and three additional courses chosen from offerings in Russian literature or Slavic Linguistics. The second requires eleven courses in the Department, including the seven "core" courses in Russian, plus three courses in another Slavic language and literature (Czech, Polish,

Serbo-Croatian or Ukrainian). Both programmes include the possibility of enrolment in fourth year seminar-type courses which will allow qualified students to take up specialized subjects and to carry out individual research projects.

Students enrolled in these programmes are free to follow their own interests in choosing their remaining courses. Some may elect to do further work in Slavic Languages and Literatures, while others will range far afield. Those emphasizing Slavic linguistics will profit from courses offered by the Departments of Anthropology and Linguistics, while the student whose primary concern is literature may be drawn to many other studies — in English or other literature, in philosophy, psychology, the history of music or art, in Russian and East European history, in Marxism or Political sociology.

Students who propose to study Russian and a second, non-Slavic language with a view to teaching in the secondary schools should enrol in a programme representing specialization in Modern Languages and Literatures from their Second Year. Within this programme and including first-year prerequisite courses, students may acquire the 21 Russian credits (7 courses) required for entry into the Type A certificate programmes in English and Russian, or French and Modern Languages and Literatures at The College of Education. Furthermore, qualified students in Modern Languages and Literatures have the opportunity to spend their third undergraduate year abroad at a university or universities recommended by the appropriate departments.

The student whose interest in the Russian or East European world is political or historical or sociological can specialize in Political Science or History or Sociology and at the same time take language courses, and perhaps selected courses in literature, in this Department. Students planning to specialize in Econom-

ics, for example, or in Psychology or Mathematics or any number of other fields, who have a special interest in the Russian or East European area, will find an advanced knowledge of Russian or of another Slavic language an important intellectual and professional asset. In recent times many fields of research have included serious and extensive work in the Russian and East European area and in Russian and Asian studies. In academic fields like History, Political Science, Economics, Sociology, professional careers can now be devoted to the study of some part of the Russian and East European area. The growing importance of Eastern Europe in contemporary affairs has not only given great impetus to the growth of Slavic Studies in Western universities, but it has the effect of making academic work in these areas especially lively and relevant. The study of literature, too, is invigorated by such a sense of contemporary relevance.

Students with literary interests, specializing in English or another modern language, will find profit in the study of Russian or another Slavic literature. Such students may also find attractive the opportunity to take some important literary courses in Russian or other Slavic literatures without needing a knowledge of any Slavic language.

Graduate programmes in the Russian and Slavic areas have expanded widely in recent years, so that many opportunities now exist for advanced study in North America and Europe. For those with such graduate training there is now the chance of spending an academic year in the Soviet Union, through an exchange programme administered by the Centre for Russian and East European Studies at the University of Toronto. Many professional opportunities are now offered, especially in the academic world and in government service. There is certain to be a continuing need for specialists in these areas of Eastern Europe, to which too little attention has been paid in the past and which are today assuming a primary role in the world's intellectual, cultural, political and scientific affairs.

SOCIOLOGY

Chairman of Department: Professor P. J. Giffen
Supervisor of Studies: Professor K. N. Walker

Enquiries: 928-3412

Sociology seeks a more accurate and insightful understanding of the way human beings relate to each other as friends, lovers, members of a family, students and teachers, workers and employers, French- and English-Canadians, and in the multitude of ways each of us is part of Society. In contrast to Psychology, which deals mainly with processes occurring within individuals, Sociology examines the web of social relationships among people. In contrast to social work, which emphasizes practice in society, Sociology seeks mainly to understand.

Of course, understanding has many practical uses. The increasing complexity of modern society creates problems for which there are no ready-made answers. Insofar, as Sociology consists of a body of tested theory and reliable facts, it can contribute to an appreciation of the dilemmas confronting human beings in achieving and maintaining the kind of society in which they hope to live. In a rapidly changing world, traditional explanations often prove unreliable, both as a basis for understanding and as a guide to action. In this situation, Sociology constitutes a valuable source of knowledge for both the individual and society.

While Sociology need not be your ultimate professional choice, it can make an important contribution to a career in teaching, journalism, social work, medicine, the ministry, business management, politics, and in fact, any career in which one must deal with other persons as members of human groups. You may also wish to study Sociology as a means of going beyond the limiting horizons of personal experience in the narrow circle of your own family, social class, race, and nation. Sociology usually brings a greater awareness of and tolerance for alternative ways of life, and an ability to feel more at home with persons of other cultural backgrounds.

In pursuing its studies, Sociology uses the methods of sciences as well as those of the humanistic disciplines. It asks how our ways of thinking, feeling, and acting are shaped by our social experience, how they came to be what they are, and how they are changed. By comparing various social systems, Sociology helps to reveal the nature of taken-for-granted and ordinarily unquestioned social behaviour, for the sociologist is never content to accept only 'common sense' explanations.

Today there are many sociologies: of politics, religion, the family, mass media, art, urban life, crime, medicine, occupations, industry, education, racial and ethnic groups, and so on. All are specialized parts of the whole study of human behaviour in its social context. The multiplication of specialized fields has gone hand in hand with the expansion of employment opportunities for students of Sociology. Many branches of government, industry, and commerce now employ sociologically trained personnel. Public relations, market research, industry, journalism, radio and television, penal institutions, social welfare agencies, planning boards, and education at all levels, provide opportunities for students of Sociology.

In Canada and abroad, the demand for professional sociologists is currently very high for teaching, research, consulting, and administrative positions. A professional career in Sociology, however, requires advanced training beyond the undergraduate level.

The Department of Sociology offers a specialist programme which combines studies in sociology with related studies in other departments. A number of variants of this programme enable the student to emphasize studies in Canadian society, comparative social structure, inter-personal relations, political sociology, social and economic organization, urban sociology, or some other specialty. Recommended programmes in each of these specialties are to be found in another section. Studies in Anthropology, Economics, Geography, History, Philosophy, Political Science, and Psychology — to mention only a few examples — are all relevant to the various specialties in Sociology, and may be productively combined with courses in this department.

The specialist programme may be entered in either Second or Third Year. While a first-year course in Sociology is not required, it is strongly recommended. Any one of SOC 101-106 is a suitable preparation for later courses, and introduces students to the basic concepts and perspectives of Sociology. SOC 101 and 105 deal extensively with a number of fields of Sociology, while each of SOC 102-104 and 106 treats a particular field more intensively.

Many of the advanced courses in Sociology have pre-

requisites, especially concerning basic theory and the logic and methods of research. Some courses assume competence in statistics. For these reasons, any student considering advanced courses is strongly urged to include SOC 201 and either 203 or 313 in his programme of study. Students planning graduate studies in Sociology are particularly advised to take these courses.

Students contemplating entrance to a Type A certificate programme at The College of Education should complete at least eight sociology courses in four years.

More detailed descriptions of courses together with preliminary bibliographies may be obtained from the Department of Sociology.

ZOOLOGY

Chairman of Department: Professor D. A. Chant

Associate Chairman: Professor R. R. Langford

Undergraduate Secretary: Professor J. B. Falls

Student Counselling Service: 928-8879

Departmental Office: 928-3473

Zoology is the branch of the biological sciences concerned with the animal kingdom. It relates to such major human problems as population numbers, war, famine, disease, conservation, pollution, and the need for outdoor recreation. The study of Zoology provides a broad perspective of man's place in the natural world. Basic awareness of the population explosion and its consequences have come from Zoological research. Ecological studies of the interaction of plants and animals show how famine and disease follow the unwise use of our habitat, and how pollution aggravates these problems. Life in our rivers and lakes is studied not only because they produce fish, but also because their oxygen and chemical contents affect all life. Zoology plays a part not only in the study of life on our planet, but also in the design of life-support systems for space travel. One modern aspect of Zoology is animal behaviour, the study of which helps us to understand human behaviour in warfare, politics, and other activities. Zoologists study the effects of radiation on animals and their surroundings, and formulate rules that can be applied to man. Much of the research done in medicine depends on discoveries made with other animals and applied to man.

Historically, Zoology was largely an observational science but now has become experimental and theoretical and depends in its research on the modern principles of mathematics and the physical sciences. The main theoretical contributions of zoologists have been in the understanding of life in terms of physical and chemical mechanisms, and the theory of organic evolution.

A zoologist is a scientist who is engaged in the study of the structure, the functioning, and the interrelationships among animals. The general field of Zoology

is divided into a large number of special areas of study and research. Zoology may be divided on the basis of the classification of animals. Examples of these divisions are: Protozoology, Entomology, Mammalogy, and Ichthyology. Another way is to divide it by levels of organization and methods of study such as: Molecular Biology, Cell Biology, Radiation Biology, Physiology, Genetics, Ethology, and Population Biology.

Modern Zoology depends on knowledge in many other scientific disciplines. The fruitful interaction of Zoology with the other sciences is encouraged at the University of Toronto. Special branches of Zoology can be combined with studies in other fields, such as Anthropology, Botany, Geology, Mathematics, Medical Biophysics, Parasitology, Paediatrics, and Psychology. Many of the professors in the Department of Zoology research and teach in other departments of the University as well and are available to counsel students. Formal recognition of this is shown by the cross-appointments of Zoology staff to other departments of the University. Not only is there interrelationship among the University departments, but this also extends to Institutes and various divisions of Government. Members of the Zoology Department maintain active programmes in affiliation with the Royal Ontario Museum, the Great Lakes Institute, the Ontario Department of Lands and Forests, and the Fisheries Research Board of Canada, to mention but a few associations. In addition to the previously mentioned disciplines, students are encouraged to incorporate in their Zoology programmes courses in the areas of Anatomy, Biochemistry, Microbiology and Physiology. The relationships and opportunities for research and study between the different disciplines are constantly being investigated and extended.

Careers in Zoology are mainly in research, which is the search for new knowledge on which to base our understanding of biological principles; in teaching at the levels of the high schools, community colleges, and universities; and in technical biological work such as drug testing, pest control, fish and wildlife management, and animal production. Professional careers in Zoology require specialization at the undergraduate level, and usually an advanced degree. Students should bear this in mind when planning their programmes.

Students who intend to become high-school biology teachers are urged to plan their programmes to meet the requirements of the High School Assistant's Certificate, Type A. For current information on these requirements check with The Ontario Department of Education, 44 Eglinton Avenue West, Toronto, or The Secretary, Faculty of Arts and Science, University of Toronto.

Two types of courses are offered by the Department of Zoology.

- (1) Generalist courses, primarily for the student who either does not wish to specialize at all in any discipline or who wishes to specialize in a quite different discipline yet include some Zoology in his programme. These generalist courses cover a broad area and stress the relationship of special aspects of Zoology to other human activities.
- (2) Specialist courses, primarily for the student who wishes to specialize in Zoology or Biology. These specialist courses deal directly with the subject and the relationship of this subject to other disciplines is not stressed.

The student specializing in Zoology or Biology may take generalist Zoology courses in areas other than those of his specialty in order to broaden his background in the Life Sciences, and to study their relationship to other disciplines.

There are no rigid prerequisite or co-requisite requirements for any course. Those listed are only suggested, not required. However, students must realize that courses are designed on the assumption that the students who are enrolled will have the suggested prerequisites in their background and will be enrolled concurrently in the suggested co-requisite courses, if any. A person who lacks the suggested prerequisite may be excluded from certain courses because of limitations of space or equipment.

In making a selection of Zoology and other science courses in a given year, the student should ensure that prerequisites for courses given in other departments in future years are obtained.

Even if a student does not seek to specialize in Zoology, he may enrol in any course offered in Zoology. The following courses are designed specifically for students who do not intend to specialize in Zoology: ZOO 200, 210, 211, 212; they offer a basic presentation of the subject with a broader point of view than possible in specialist courses.

There is no prescribed programme for students specializing in Zoology, and such students also may enrol in any course offered by the Department. However, students who wish to specialize and to prepare for a career in Zoology are advised to build their programme along the following lines:

In First Year — BIO 100 or 120, CHM 120, PHY 140 or 130 (normally followed by 230) and a first-year Mathematics course other than MAT 100.

In Second Year — CHM 235, STA 232 or 242, and three of ZOO 220, 221, 222, 223, 224, 226.

Because ZOO 225 depends on CHM 235 as a pre-requisite, and on Biochemistry as a co-requisite, it is preferably deferred to the Third Year.

In addition, ZOO 250, 251, 252, 253, 254 are available to second-year students who desire them for programmes in this or other disciplines.

In the Third Year, students specializing in Zoology are encouraged to take as many of the remaining courses in the ZOO 220-226 series as possible, and additional courses in the ZOO 250 series are available for their consideration. In the Fourth Year, a wide variety of advanced courses is available for those with the necessary background.

Many variations on the suggested programme are possible, depending on the student's individual interests and needs. For example, a student interested in Quantitative Ecology may wish to take additional courses in Mathematics; a student interested broadly in Biology may wish to substitute courses in Botany for some of the above; or a student interested in Cellular Zoology or Physiology may wish to take more Chemistry, Physics, or Biochemistry than the suggested minimum. Specialist students are urged to take advantage of the counselling services provided by the Department before selecting courses for their programmes.

Students entering university with Grade XIII Biology may petition to enter directly into Zoology courses in the 210 or 220 series. Normally, however, they will be advised to take BIO 120 to ensure an adequate background for further study in the Life Sciences. ZOO 200 is available to any student in the University in any year. Other courses in the 200 series are recommended primarily for students in Second or later years.

PROGRAMMES OF STUDY IN THE FACULTY OF ARTS AND SCIENCES

The following selection of suggested programmes of study is presented here primarily to show how programmes can be created so as to achieve a particular emphasis in some specific field. These give a recommended first-year programme, and, in many cases indicate programmes that would be devised by a student in his second, third and fourth year who wishes to specialize in a given discipline or certain combinations of disciplines. Many of these reproduce in the New Programme the degree of specialization that was present in many of the previous "Honour Courses"; some show new specialization opportunities that the New Programme's flexibility now makes possible.

The list below offers examples of what can be done; it is by no means complete, indeed one could not list all the variants that are possible within a given programme to achieve special emphasis in a particular aspect of the subject. In general, the programmes suggested below list fewer than the five courses that a year's programme must comprise; this is deliberate, for students may specialize and at the same time follow other interests not directly related to the field of specialization, or, alternatively, specialize even more completely, if they wish to do so.

The Division will offer as many areas of specialization as is possible.

B.A. PROGRAMMES

The following suggested programmes of study in Languages and Literatures, the Humanities and the Social Sciences lead to a Bachelor of Arts (B.A.) degree. They are listed alphabetically.

Chinese Studies (Consult Department of East Asian Studies)

Many different combinations are possible and students should consult Departmental advisers in planning their programmes of study.

Recommended first-year preparation: EAS 100.

Second-year programme: EAS 200/206, and one other EAS course.

Third-year programme: EAS 332/335, and two other EAS courses of which one should be a language course.

Fourth-year programme: Three courses EAS of which two should be language courses.

Classics (Consult Department of Classics)

Recommended first-year preparation in Greek:

(a) Two of GRK 120S, 121S, 122F, 123F for students with XIII GRK.

(b) GRK 100 for students without XIII GRK.

Recommended first-year preparation in Latin:

(c) Two of LAT 120F, 121F, 122S, 123S for students with XIII LAT.

(d) LAT 130 for students with only XII LAT.

(e) LAT 100 for students without high school LAT.

Second-year programme: One course-combination in GRK, together with one course-combination in LAT as given below.

GRK course-combinations:

(i) GRK 220 & 221 for students with first-year preparation (a)

(ii) GRK 220 & 221 or one of GRK 220, 221 and two of GRK 120S, 121S, 122F, 123F for students with first-year preparation (b).

LAT course-combinations:

(iii) LAT 220 & 221 for students with first-year preparation (c) or (d).

(iv) One of LAT 220 & 221 and two of LAT 120F, 121F, 122S, 123S for students with first-year preparation (d) or (e)

Third-year programme: Any two of LAT 320, 321, 322, 420, 421, 422, 423, 424, 425. Any two of GRK 320, 321, 322 or one of GRK 320, 321, 322 and one of GRK 220, 221.

Fourth-year programme: Any two of LAT 320, 321, 322, 420, 421, 422, 423, 424, 425. Any two of GRK 420, 421, 422, 423.

Economics (Consult Department of Political Economy)

Students who wish to do serious work in Economics should take the four core subjects — microeconomics, macroeconomics, mathematics and statistics — and complement these courses with four to eight additional courses in Economics.

Recommended first-year preparation: ECO 100, MAT 134

Fourth-year programme (1970-71): ECO (325F & 326S)/332, ECO 328

Economics and Mathematics (Consult Professor W. Haque, Department of Mathematics) (See description under B.Sc. programmes, Mathematics and Economics)

English Language and Literature (Consult Department of English)

For this twenty-course programme a student is required:

- (a) to take at least ten and not more than fifteen courses in ENG,
- (b) to achieve an average of B or better in the core programme of the ten courses (as set out below),
- (c) to complete at least five courses outside the Department of English by the end of his fourth year, and
- (d) to achieve standing in some form of Comprehensive Examination.

The core programme of ten courses is defined as follows:

- One of ENG 200, 312, 404
- One of ENG 302, 304, 413
- One of ENG 212, 332
- One of ENG 306, 415
- One of ENG 308, 346, 368, 417
- One of ENG 322, 324
- One of ENG 218, 350
- One of ENG 328, 338, 348, 419

Two additional courses chosen from the above, or any others in the 200-, 300- or 400-series. At least one 400-series course must be included in the ten courses.

English and One Other Subject (for double teaching certification) (Consult Departments of English, and of the other subject).

The core programme for ENGLISH is as follows:

- One of ENG 200, 312, 404
- One of ENG 302, 304, 413
- One of ENG 212, 332
- One of ENG 306, 322, 415
- One of ENG 308, 324, 346, 368, 417
- One of ENG 328, 338, 348, 419

One additional course, chosen from the above or from other courses in the 200-, 300-, 400-series. Consult the appropriate Department regarding requirements in the other subject.

English and Latin (Consult Departments of English and Classics)

Recommended first-year preparation: LAT (See under Classics); at least one course in ENG.

Second-year programme: Two of LAT 220, 221, 222; ENG (see regulations for double certification under English and One Other Subject).

Third-year programme: LAT 320 and one of courses in the 300 and/or 400 series; ENG (see regulations for double certification under English and One Other Subject).

Fourth-year programme: LAT: Two of the courses in the 300/or 400 series (of which LAT 420 must be one unless LAT 221 has previously been taken); ENG (see regulations for double certification under English and One Other Subject).

Fine Art—History of Art (Consult Department of Fine Art)

The total programme requires a minimum of ten courses in History of Art and must include FAR 101, 102, 200, 201.

Students are also advised to take FAR 100.

Recommended first-year preparation: FAR 100, 101, 102

Second-year programme: Should include FAR 200, 201 and a third Fine Art 100-series course if not already taken. By the end of second year students should have acquired a reading knowledge of two of French, Italian or German.

Second-, third- and fourth-year programme: Should include at least six of FAR 202, 220, 300, 301, 323, 324, 325, 400, 401S, 420, 421F, 422. The selection of courses and the sequence in which they are taken will be determined by the interests of the individual student and by the need to comply with stated prerequisites.

Fine Art—Studio (Consult Department of Fine Art)

The total programme requires a minimum of ten courses in FAR: four must be in History of Art (and include FAR 101, 102, 200, 201) and six in Studio work.

Recommended first-year preparation: FAR 101, 102, 110.

Second-year programme: should include FAR 200, 201, 230.

Third- and fourth-year programme: should include at least four of FAR 330, 331, 332, 333, 430, 431, 432. The selection of courses and the sequence in which they are taken will be determined by the interests of the individual student and by the need to comply with the stated prerequisites.

French Language and Literature (Consult Department of French)

The specialist programme in French Language and Literature requires standing in a minimum of ten FRE courses taken as part of a four-year programme. No more than two of these courses may be from the series 120-199, and at least two of these courses must be from those listed as "Courses open to third and higher years" and "Courses open to fourth-year students". A mark of

B.A. PROGRAMMES

at least 70% must be achieved in each of at least seven FRE courses. It is highly recommended that a student take at least four courses outside the French Department.

To fulfill the Department's requirements in language proficiency a student must: (a) successfully complete FRE 371 or a special University examination in written French of the same standard as FRE 371, normally to be taken during the Third Year; and (b) pass a University oral examination, also normally to be taken during the Third Year. To fulfill the Department's requirement in French linguistics a student must successfully complete at least one of FRE 372, 373, 374, 475, 476 or Independent Study (FRE 290, 390, 490) on a linguistic or stylistic topic. Students planning a teaching career are strongly encouraged to take FRE 372. To fulfill the Department's literature requirement a student must successfully complete at least four literature courses (not including FRE 120), one of which must be primarily devoted to texts prior to 1800, and one of which must be primarily devoted to texts after 1800. Only two inter-college options may be counted towards this literature requirement.

The requirements for double-specialization in French and another subject (e.g. in Modern Languages and Literatures) are the same as above, save that a minimum of seven courses in French is required, of which at least three must be literature courses. Only one inter-college option may be counted towards this literature requirement. A mark of at least 70% must be achieved in each of at least five FRE courses.

Subject to the usual prerequisites, the above requirements may be fulfilled in any order the student wishes and the number of French courses taken each year may be determined by the student. However, the French Department recommends the following programme for a student enrolled in 1970-71:

Recommended first-year preparation: FRE 120 & FRE 140/142.

Second-year programme: Two or more courses from the courses listed as "Courses open to second and higher years" (except FRE 200 & 300).

Third-year programme: Two or more courses from the courses listed as "Courses open to second and higher years" (except FRE 200 & 300) and "Courses open to third and higher years".

Fourth-year programme: Specialists in French Language and Literature should take at least three courses (double-specialists at least two courses) from those courses listed as "Courses open to second and higher years" (except FRE 200 & 300), "Courses open to third and higher years", and "Courses open to fourth-year students". Care

should be taken to avoid selecting courses which duplicate the content of previous or concurrent courses.

French and Latin (Consult Departments of French and Classics)

Recommended first-year preparation: LAT: (See under Classical Studies); FRE 120 and FRE 140/142.

Second-year programme: Two of LAT 220, 221, 222; Two or more courses in FRE from the courses listed as "Courses open to second and higher years" (except FRE 200 and 300).

Third-year programme: LAT 320 and one of the courses in the 300 and/or 400 series: Two or more courses in FRE from the "Courses open to second and higher years" (except FRE 200 and 300) and "Courses open to third and higher years".

Fourth-year programme: LAT: Two of the courses in the 300 and/or 400 series (of which LAT 420 must be one unless LAT 221 has previously been taken): Two or more courses in FRE from the courses listed as "Courses open to second and higher years", and "Courses open to fourth year students".

Geography (Consult Department of Geography)

The total programme requires a minimum of nine courses in Geography, including GGR 100, 270, 320, 491 and GGR 390F/391F.

(Programmes in Physical Geography can qualify for the B.Sc. degree; consult the Department of Geography.)

Recommended first-year preparation: GGR 100, 101/220.

Second-year programme: should include GGR 270.

Third-year programme: should include GGR 390F/391F; GGR 320 can be taken in Third or Fourth year.

Fourth-year programme: should include GGR 491.

German Language and Literature (Consult Department of German)

Recommended first-year preparation: GER 110, 120; or GER 120/130.

Second-year programme: GER 210, and GER 220/230.

Third-year programme: Two of GER 320, 321, 322*, 410, 420, 421, 422.

Fourth-year programme: Two of GER 320, 321, 322*, 410, 420, 421, 422.

*GER 322 is required of specialists.

Greek (Consult Department of Classics)

Recommended first-year preparation: As under Classics.

Second-year programme: One GRK course-combination as under Classics, and one of LAT 220, 221, 222.

Third-year programme: GRK 320, 321, 322 or two of GRK 320, 321, 322 and one of GRK 220, 221, one course in LAT.

Fourth-year programme: Any three of GRK 420, 421, 422, 423, (430/431), one course in LAT.

Greek and Roman History (Consult Department of Classics)

Third-year programme: Two GRH courses in each of second and third year, together with four courses in GRK and LAT with at least one in each language.

Fourth-year programme: Two GRH courses in each of second, third and fourth year, together with a total of six courses in GRK and LAT (at least one in each language to be completed by the end of the third year).

History—Modern History (Consult Department of History)

The total programme requires an academically coherent combination of courses chosen in consultation with departmental advisers so as to serve the interests of the student. A minimum of seven courses in HIS is required in the Programme.

Recommended first-year preparation: HIS 100.

Second-year programme: Two or three HIS courses.

Third-year programme: Two or three HIS courses.

Fourth-year programme: Prerequisite: Four 200- and/or 300-series courses in HIS. Two or three HIS courses, including at least one 400-series course.

Indian Civilization (Literature, Philosophy or History Specialists) (Consult Department of East Asian Studies)

Recommended first-year preparation: EAS 110; EAS 112 & 116 are also recommended.

Second-year programme: EAS 210, 211 and two of EAS 212, 213, 214.

Third-year programme:

Literature: EAS 310, 311, 312/313, 317/319; EAS 314 is also recommended.

Philosophy: EAS 303, 313, 312/314, 317; EAS 311 is also recommended.

History: EAS 302, 312, 313/314, 317/319; EAS 311 is also recommended.

Fourth-year programme:

Literature: EAS 410, 411, 412/413, 417/419; EAS 414 is also recommended.

Philosophy: EAS 403, 413, 412/414, 417; EAS 411 is also recommended.

History: EAS 402, 412, 413/414, 417/418/419; EAS 411 is also recommended.

Islamic Studies (Consult Department of Islamic Studies)

The total programme requires a minimum of nine courses in Islamic Studies, of which at least three shall be language courses and three history courses. Students who intend to enrol in this Programme are urged to contact the Undergraduate Secretary of the Department of Islamic Studies as soon as possible, and in any case not later than the end of their First year.

Recommended first-year preparation: ISL 214.

Italian (Consult Department of Italian and Hispanic Studies)

Italian and Latin (Consult Departments of Italian and Hispanic Studies, and Classics)

Recommended first-year preparation: LAT: (See under Classics); ITA 100/(121Y, and one of ITA 120Y, 190Y).

Second-year programme: Two of LAT 220, 221, 222; ITA 220Y/221Y/290Y, and ITA 222Y, ITA 223F, ITA 224S.

Third-year programme: LAT 320 and one of the courses in the 300 and/or 400 series; ITA 321 and one full course or two half-courses from the 300 and/or 400 series.

Fourth-year programme: LAT: Two of the courses in the 300 and/or 400 series (of which LAT 420 must be one unless LAT 221 has previously been taken); ITA: Two full courses or equivalent in half courses from the 300 and/or 400 series.

Japanese Studies (Consult Department of East Asian Studies)

Recommended first-year preparation: EAS 120, 124.

Second-year programme: EAS 220, 222 (and EAS 124 if not taken previously).

Third-year programme: EAS 320, 322, 206/321/323 (and EAS 224 if not taken previously).

Fourth-year programme: EAS 420, 426, and TWO of EAS 335, 421, (422F & 423S), 423Y, 424, 425, 427 (and EAS 206 if not taken previously).

Judaic Studies

Students wishing to pursue a programme of study of Jewish thought, literature, culture, religion and history may do so by combining courses offered in the Departments of Near Eastern Studies, Philosophy, and Religious Studies. Consultation with these Departments and with the Departments of History and Sociology, which offer courses in areas relevant to Jewish history and culture, will yield programmes of considerable concentration on Judaica.

B.A. PROGRAMMES

Languages and Literatures

Many programmes can be devised which combine modern languages, ancient languages, or modern and ancient languages together. The pattern for such combinations could be basically the same, i.e. two courses (where offered) in each of the two languages chosen in each of the second, third and fourth years, the fifth course remaining a free choice.

- (a) Courses are offered (not all in three or four year sequences) in the following modern languages: Arabic, Chinese, Czech (& Slovak), English, French, German, Hebrew, Hindi, Italian, Japanese, Persian, Polish, Portuguese, Russian, Serbo-Croatian, Spanish, Turkish, Ukrainian.
- (b) Courses are offered (not all in three or four year sequences) in the following ancient languages: Akkadian, Classical Arabic, Aramaic-Syriac, Chinese, Egyptian, Greek, Hebrew, Classical Japanese, Latin, Pali, Sanskrit.
- (c) Interesting combinations can be devised within (a), within (b), or by combining courses from (a) and (b).
- (d) The Department of Education lists the following combinations of language courses which lead to Interim High School Assistant's Certificates, Type A in Ontario Colleges of Education: English and French; English and German; English and Russian; English and Spanish; French and German; French and Italian; French and Russian; French and Spanish; Classics (Latin and Greek); English and Latin; French and Latin; Italian and Latin.

Latin (Consult Department of Classics)

Recommended first-year preparation: As under Classics.

Second-year programme: One LAT course-combination as under Classics, of GRK 220, 221.

Third-year programme: Any three of LAT 320, 321, 322, 420, 421, 422, 423, 424, 425, (430/431). One course in GRK.

Fourth-year programme: Any three of LAT 320, 321, 322, 420, 421, 422, 423, 424, 425, (430/431). One course in GRK.

NOTE: LAT 320 and either LAT 221 or LAT 420 must be included in the overall programme.

Latin and another subject (except Greek) (Consult Department of Classics, and of the other Subject).

The Latin component of such a programme is recommended as follows:

Recommended first-year preparation: As under Classics.

Second-year programme: One course-combination in LAT as under Classics.

Third-year programme: Any two of LAT 320, 321, 322, 420, 421, 422, 423, 424, 425.

Fourth-year programme: Any two of LAT 320, 321, 322, 420, 421, 422, 423, 424, 425.

Latin and Italian (See under Italian and Latin)

Latin and Spanish (Consult Departments of Classics, and Italian and Hispanic Studies)

Recommended first-year preparation: LAT: (See under Classics); SPA 100/120.

Second-year programme: Two of LAT 220, 221, 222; SPA 220Y/221Y and any three half-courses in the 200 series.

Third-year programme: LAT 320 and one of the courses in the 300 and/or 400 series; SPA 320Y and any three half-courses in the 300 and/or 400 series.

Fourth-year programme: LAT: Two of the courses in the 300 and/or 400 series (of which LAT 420 must be one unless LAT 221 has previously been taken); SPA 420Y and any three half-courses in the 300 and/or 400 series.

Latin American Studies (Consult Professor K. L. Levy, Department of Italian and Hispanic Studies)

Recommended first-year preparation: GGR 100/101/220, HIS 100, SPA 100/120. One of ANT 100, JAL 100, ANT 150, ECO 100, POL 101, SOC 101-105.

Second-year programme: GGR 242, HIS 290/343, SPA 220Y and SPA 280Y. One of ANT 204, JAL 100, ECO 200*, 202*, FRE 120, POL 200*, 206*, 305, PRT 200, SOC 201*, 202*, 203*, 204-207.

Third-year programme: PRT 200, SPA 320Y and one of SPA 366F, 382S, 386Y, 466S, 470Y, 480F, 484Y. Two of ANT 340, ECO 324, 328, 345F, GGR 101, 220, 224, 322F, 338F, HIS 390, POL 304, 305, 306, 320, SOC.

Fourth-year programme: PRT 420, SPA 420Y and a 300- or 400-series SPA course. Two of ANT 441, 443, ECO 324, 328, 345F, GGR 101, 220, 224, 322F, 338F, HIS 390, 491, 492, POL 407, 417, SOC 401, 402, 451F, 451S.

NOTE: Students should consult the Departments concerned when making their choice; courses marked with an asterisk (*) are strongly recommended if later specialized work in one of the disciplines is contemplated. Students may also emphasize one or two of their disciplines by doubling or tripling courses in any year.

Linguistics [with (e.g.) Anthropology] (Consult Professor J. J. Chew in Department of Anthropology)

Recommended first-year preparation: JAL 100 (required not later than second year).

Second-year programme: LIN 228F, 229S, 230 (required not later than third year).

Third-year programme: LIN 326 (unless One of EAS 100, EAS 120, ISL 216, NES 142, is taken); Two of: JAL 300, LIN 201, 333, 348, 349, 350, 450, 491, ANT 220, PSY 305F plus a half course.

(Any of these may be postponed to a fourth year.)

Fourth-year programme: LIN 491 (optional if requirements have been met).

Linguistics and Mathematics (Consult Professor B. Brainerd, Department of Mathematics) (See description under B.Sc. Programmes).

Modern Languages and Literatures

For many years, several departments of the Faculty of Arts and Science (English, French, German, Italian and Hispanic Studies, Slavic Languages and Literatures) have co-operated to provide students with a framework for specialized study in Modern Languages and Literatures. More recently, the Department of Linguistics has offered at the undergraduate level courses which fit well into such a framework.

Recommended first-year preparation: At least one course (normally the basic course) in each of at least two modern languages (of which English may be one).

Second-year programme: Two courses in each of the two languages chosen in first year.

Third-year programme: Two courses at the appropriate level in each of the chosen languages.

Fourth-year programme: Two courses at the appropriate level in each of the chosen languages.

Music (Consult Advisers in the Faculty of Music)

Recommended first-year preparation: MUS 100, 120, HIS 100, GER 120/105.

Second-year programme: MUS 222, 240, ITA 120/100/LAT 100, PHL 208F/209F, 318S, GER 205 (if GER 105 was taken in previous year).

Third-year programme: MUS 322; MUS 343Y and 340Y/348Y are strongly recommended additions.

Fourth-year programme: MUS 422; MUS 443 and other MUS courses are strongly recommended additions.

Near Eastern Studies (Consult Department of Near Eastern Studies)

Recommended first-year preparation: NES 100, NES 141/151/ISL 214.

Second- and Third-year programme: A minimum of six courses in Near Eastern History and Near Eastern Languages (which may be taken to include Arabic, see under Islamic Studies). At least two of these six must make a two-year sequence in one Near Eastern Language (including Arabic). If only six courses in NES or Arabic are taken in the second and third years, two further courses are required in cognate subjects, approved as such by departmental advisers, that are taught in other departments (e.g. courses in ANT, GLL, GRH, GRK, LAT, FAR, HIS, ISL, LIN, Modern Languages and Literatures, PHL, REL, SOC). If the second and third year programme includes seven courses in NES, then one course in a cognate subject is required.

Fourth-year programme: Three courses in NES; one course in a cognate subject (with Departmental approval). At least two of these four courses must be in two different languages.

Near Eastern Studies—Languages (Consult Department of Near Eastern Studies)

This represents an ideal programme for students specializing in Hebrew and Akkadian Languages. Many of the courses could be taken in later years than that suggested and, of course, different courses should be chosen to suit other areas of specialization.

Recommended first-year preparation: NES 100, 141, JAL 100.

Second-year programme: NES 211, 241, 271, LIN 220.

Third-year programme: NES 311, 341, 272.

Fourth-year programme: NES 411, 441, 471, 481.

Near Eastern Studies—History—Archaeology (Consult Department of Near Eastern Studies)

This represents an ideal programme for students specializing in Egyptian History and Archaeology. Many of the courses could be taken in later years than that suggested and, of course, different courses should be chosen to suit other areas of specialization.

Recommended first-year preparation: NES 100, ANT 100.

Second-year programme: NES 231, 271, 281F, 282S, ANT 204.

Third-year programme: NES 272, 331, ISL 214.

Fourth-year programme: NES 431, 471, 481, ISL 220.

Philosophy (Consult University Department of Philosophy)

The total programme requires a minimum of twelve half-courses from those numbered 200 and above. It is strongly recommended that these include at least two of PHL 206, 207, 327, 328, 329, 330, and at least two of PHL 307, 308, 309, 310 and PHL 314 and 315.

Recommended first-year preparation: PHL 100.

PARKING FACILITIES ON ST. GEORGE CAMPUS

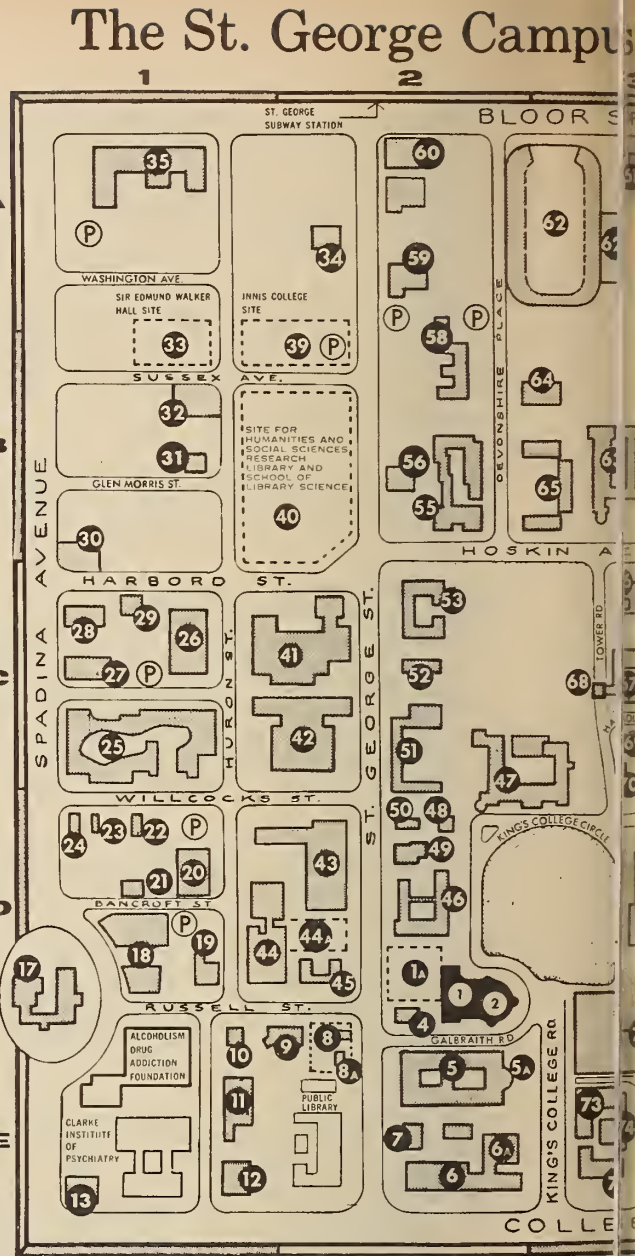
Visitors may park in supervised areas (marked P on map) when space is available after University permit holders have been accommodated.

Commercial parking lots nearest to the campus are at Bloor and Avenue Rd. (A-4); College and Elizabeth (E-5); College and University (E-4); College, west of Central Public Library (E-2).

Parking on public streets within the campus is metered where permitted. Parking in unauthorized zones is subject to fines of up to \$10.

ALPHABETICAL LISTING

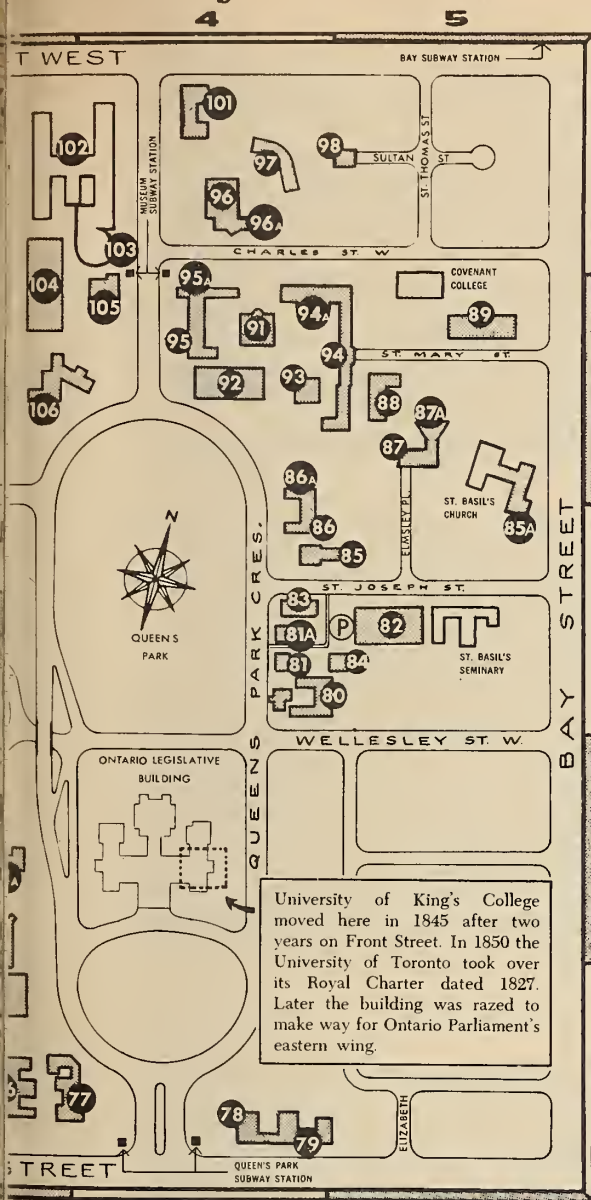
| | | |
|---|-----|--------------|
| ACCOUNTING (Physical Plant)..... | 11 | (E-1) |
| ADMINISTRATION (Simcoe Hall)..... | 1 | (D-2) |
| ADMINISTRATION BUILDING Site..... | 1A | (D-2) |
| ADMISSIONS OFFICE (Simcoe Hall)..... | 1 | (D-2) |
| ADVISORY BUREAU..... | 30 | (B-1) |
| ALUMNI HOUSE..... | 23 | (D-1) |
| ANNESLEY HALL (Victoria)..... | 96 | (A-4) |
| ARCHITECTURE..... | 12 | (E-1) |
| ARENA..... | 62A | (A-3) |
| BANTING INSTITUTE..... | 79 | (E-4) |
| BENSON BUILDING (Women's Athletics)..... | 26 | (C-1) |
| BEST (CHARLES H.) INSTITUTE..... | 78 | (E-4) |
| BIRGE-CARNEGIE LIBRARY (Vic.)..... | 95A | (B-4) |
| BOOKROOM..... | 48 | (D-2) |
| BORDEN BUILDINGS..... | 18 | (D-1) |
| BOTANY..... | 77 | (E-4) |
| BRENNAN HALL (St. Michael's)..... | 87 | (B-5) |
| BURTON TOWER..... | 44 | (D-1) |
| BURWASH HALL (Victoria)..... | 94A | (B-4) |
| BUSINESS..... | 59 | (A-2) |
| CAMPUS CENTRE Site..... | 8 | (E-2) |
| CANADIANA-ARCHIVES..... | 71A | (D-3) |
| CAREER COUNSELLING AND PLACEMENT CENTRE..... | 24 | (D-1) |
| CARR HALL (St. Michael's)..... | 85 | (C-5) |
| CLOVER HILL (St. Michael's)..... | 85A | (C-5) |
| COLLEGE OF EDUCATION..... | 35 | (A-1) |
| CONNAUGHT LABS (Spadina)..... | 17 | (D-1) |
| CONVOCATION HALL..... | 2 | (D-2) |
| CUMBERLAND HOUSE..... | 7 | (E-2) |
| DEVONSHIRE HOUSE..... | 65 | (B-3) |
| DRAMA CENTRE STUDIO THEATRE..... | 31 | (B-1) |
| EDWARD JOHNSON BUILDING (Music)..... | 104 | (B-3) |
| ELECTRICAL BUILDING..... | 74 | (E-3) |
| ELMSLEY HALL (St. Michael's)..... | 88 | (B-5) |
| EMMANUEL COLLEGE (Vic.)..... | 95 | (B-4) |
| EXTENSION DIVISION..... | 105 | (B-4) |
| EXTENSION LIBRARY..... | 83 | (C-4) |
| FACULTY CLUB..... | 22 | (D-1) |
| FOOD SCIENCES..... | 101 | (A-4) |
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B.A. PROGRAMMES

Philosophy (Consult St. Michael's College Department of Philosophy)

The total programme consists of six full courses or their equivalent, chosen from those numbered 151, 250 and above, at least three of which must be from those numbered 350 and above, together with a number of courses in other disciplines totalling four full courses or their equivalent.

Recommended first-year preparation: PHL 150 (students who already have some acquaintance with philosophy are encouraged to take a 200-series course.)

Philosophy and Mathematics (Consult Professor F. Tall, Department of Mathematics and Professor A. Rosenthal, Department of Philosophy) (See description under B.Sc. programmes)

Political Science (Consult Department of Political Economy)

It is strongly suggested that the student seeking a basic understanding of politics take at least two courses in Political Theory. Although POL 100 is not a required course in such a Programme, it is a prerequisite for advanced courses in Canadian Government and Public Administration, and is thus recommended as first-year preparation.

Fourth-year programme (1970-71): At least THREE Political Science courses.

Political Science and Economics (Consult Department of Political Economy)

Fourth-year programme (1970-71): One course in Economics, one course in Political Science, one course in either Economics or Political Science.

Religious Studies (Consult Department of Religious Studies)

The programme normally requires an academically coherent combination of nine to twelve courses chosen in consultation with a faculty adviser so as to serve the interests of the student. It is ordinarily expected that the Programme will take four years. A coherent Programme should expose the student to a range of world religions and approaches to the study of religion. Suggested combinations of courses are outlined in the departmental brochure, available at College Registrars' offices.

Russian Language and Literature (Consult Department of Slavic Languages and Literatures)

The Programme requires ten SLA courses over the four-year programme:

Seven required Russian "core" courses:

For non-Matriculants: SLA 100, 220, 240, 320, 340, 420, 440.

For Matriculants: SLA 121, 221, 240, 321, 340, 440 and one 400-series course.

Three full courses of the following full and half courses:

SLA 110, 212, 311, 312, 330, 332, 436, 442F, 443S, 444F, 445S, 446.

NOTE that the seven Russian "core" courses listed above are the requirement for the Russian component in double-specialization within the Languages and Literatures or Modern Languages and Literatures Programmes.

Recommended first-year preparation: SLA 100/121.

Slavic Languages and Literatures (Consult Department of Slavic Languages and Literatures)

The Programme requires eleven SLA courses over the four-year programme:

Seven Russian "core" courses listed above under "Russian Language and Literature".

Three courses, including one 400-series course, in another Slavic language and literature (Czech, Polish, Serbo-Croatian or Ukrainian).

One of SLA 110, 212, 215-218, 311, 312, 330, 332 or a 400-series course. Note however that only one of SLA 215-218 may be counted toward the required eleven courses.

Recommended first-year preparation: For students with XIII RUSS: SLA 121, one of SLA 110, 205-208, 215-218 as available. For students without XIII RUSS: SLA 100, one of SLA 110, 215-218 as available.

Sociology

The programme requires a minimum of six courses in Sociology, including SOC 201 or its equivalent and one of SOC 203 or 313 (or one of the old programme courses in sociological theory,† SOC 301 or 323). Students entering this Programme should enrol with the Department of Sociology before the end of the first term in their second and subsequent years.

While the following recommendations represent different emphases or specialties within the Programme, students may wish to select other combinations of courses to suit their interest, and should feel free to seek the advice of specialists in the Department in working out their programmes. Courses that are particularly central to a specialty are starred (*).

Sociology—Canadian Society (see minimum requirements, page 70.)

Recommended first-year preparation: Any one of SOC 101*-106; POL 100.

Second-year electives: SOC 205*, 206*, ANT 241, ECO 221, GGR 240*, HIS 250*.

Third-year electives: SOC 301*, 303*, 310*, ECO 320, 342, GGR 248*, HIS 361, 362, 363*, 366, 368, POL 308, 323.

Fourth-year electives: SOC 451F* and 452S*, HIS 462, POL 412.

Sociology—Comparative Social Structure (see minimum requirements above)

Proficiency in at least one foreign language should be developed throughout the Programme.

Recommended first-year preparation: Any one of SOC 101*-106*; EAS 102, 112.

Second-year electives: SOC 206*, ANT 204*, 220, ECO 227, GGR 242, POL 202*, 204.

Third-year electives: SOC 301*, 303*, 307*, ANT 344, JAP 343, ECO 324*, EAS 306, 323, 325, GGR 338F*, 342F, 343, 344, ISL 302, POL 303, 324*.

Fourth-year electives: SOC 451F* and 452S*, ANT 420*, EAS 421, 423, POL 403, 422*, 419.

Sociology—Inter-Personal Relations (see minimum requirements above)

Recommended first-year preparation: Any one of SOC 101*-106*.

Second-year electives: SOC 202*, PSY 204S.

Third-year electives: SOC 302*, 306* or 308*, 309*, 310*, 317*, JAL 300, PHL 320S, 332F, 377, POL 330, PSY 302F, 303, 304S, 306S, 330F, 333F.

Fourth-year electives: SOC 451F* and 452S*, ANT 431, 442, PSY 402S, 405F.

Sociology—Political Sociology (see minimum requirements above)

Recommended first-year preparation: Any one of SOC 101*-106*; ECO 100, 101, POL 100, 101.

Second-year electives: SOC 204*, 206, POL 200, 201, 202.

Third-year electives: SOC 301*, 304*, 307*, 314*, 316*, 318*, ANT 340, ECO 338, HIS 348, 361, POL 300, 304, 307, 308.

Fourth-year electives: SOC 451F* and 452S*, POL 400, 408, 409, 410, 412.

Sociology—Social and Economic Organization (see minimum requirements above)

Recommended first-year preparation: Any one of SOC 101*-106*, ECO 100, POL 101.

Second-year electives: SOC 204*, 206, 207*, ANT 204, FSM 200.

Third-year electives: SOC 301*, 303*, 304, 307*, 311, 312, 314*, ECO 322, 344, FSM 300, HIS 361.

Fourth-year electives: SOC 451F* and 452S*, COM 401, FSR 400, POL 409, 410.

Sociology—Urban Sociology (See minimum requirements above)

Recommended first-year preparation: Any one of SOC 101*-106*, CSC 118S/158S.

Second-year electives: SOC 205*, FSC 200, FSE 200, FSM 200, GGR 224.

Third-year electives: SOC 310, 312, 315*, 318, ECO 333F, 334F, 345F, FSE 300, FSM 300, GGR 325S, 328S, 336F, 337S, 338F, POL 308, PSY 303F, 304S.

Fourth-year electives: SOC 451F* and 452S*, ANT 444, FAR 400, HIS 463, IND 424.

Spanish (Consult Department of Italian and Hispanic Studies)

Spanish and Latin (See under Latin and Spanish)

B.SC. PROGRAMMES

The following suggested programmes of study in Mathematics, the Physical Sciences and the Life Sciences lead to a Bachelor of Science (B.Sc.) degree if the required number of science courses are included in the overall programme.

Actuarial Science (Consult Professor P. L. J. Ryall, Department of Mathematics)

This programme is designed to prepare a student for professional work as an actuary.

Recommended first-year preparation: MAT 134/135/139/150.

Second-year programme: ACT 223F & 233S; One of MAT 234/235/239/250; STA 242/252; (ECO 240F & 241S are recommended).

Third-year programme: ACT 323, 333; STA (332F & 342S).

Fourth-year programme: ACT 423/433; STA 432F.

Astronomy (Consult Department of Astronomy)

Recommended first-year preparation: MAT 139/(140 & 150), PHY 120 are equivalent.

The Programme comprises the following courses in Astronomy, Mathematics and Physics.

APM 246S

AST 300, 310Y, 400, 410Y

MAT 239, 339

PHY 220, 221F, 222S, 300, 302, 303F

MAT 244F/APM 331F

Astrophysics (Consult Departments of Astronomy and Physics)

Recommended first-year preparation: PHY 120 or equivalent, MAT 139/(140 & 150).

Second-year programme: PHY 220, 221F, 222S, MAT 239, APM 246S, MAT 244F/APM 331F.

Third-year programme: AST 300, 310Y, PHY 300, 303F, MAT 339.

Fourth-year programme: AST 400, 410Y, PHY 302, a further selection of courses in the 400 series.

Biochemistry (Consult Department of Biochemistry — Faculty of Medicine)

Recommended first- and second-year preparation: BIO 100/120, CHM 120, CHM (220 & 235), MAT 130/135/139/150.

Third-year programme: BCH (321 & 371), CHM 340.

Fourth-year programme: BCH 471, three of BCH 421-426.

Biochemistry and Chemistry (See under Chemistry and Biochemistry)

Biology (Consult Departments of Botany and Zoology)

A programme in Biology is suggested for students who plan to work in the broad field of Biology rather than in a biological subdiscipline. A specialist programme in Biology is particularly appropriate for students planning careers in Biology teaching.

Recommended first-year preparation: BIO 100/120, CHM 120, MAT (other than MAT 100), PHY 140/130.

Second-year programme: Five courses, with at least one in Botany and one in Zoology recommended.

Third- and fourth-year programmes: Five courses in each year, with a year total of at least two courses in each of Botany and Zoology recommended. Students are urged to choose some of their courses from such cognate fields as Organic Chemistry, Biochemistry, Microbiology.

Students are urged to take at least one of the two field courses, BIO 300 and BIO 301.

Biology and Mathematics (See under Mathematics and Biology)

Botany (Consult Department of Botany)

Recommended first-year preparation: BIO 100/120/BOT 100, CHM 120, MAT 130/135, PHY 130/140.

Second-year programme: BOT 210 & 240, CHM 235; Selection from other BOT and ZOO courses, MBL 220, PHY 230.

Third-year programme: Two of BOT 300, 320/321, 330, 341, and two selected from other BOT courses, ZOO courses, MBL courses, BCH 320/321, STA 232/242.

The total programme should include at least eight courses in BOT and BIO, and six in allied sciences and MAT.

Chemical Physics (Consult Departments of Physics and Chemistry)

Recommended first-year preparation: CHM 120, MAT 139/(140 & 150), PHY 120 or equivalent.

Second-year programme: CHM 220, 235, MAT 239, PHY 220, 221F.

Third-year programme: CHM 320, MAT 339, MAT 244F/APM 331F, PHY 300, 321Y.

Fourth-year programme: Three 400 series Physics/Chemistry courses with at least one chosen from Physics and one chosen from Chemistry.

Chemistry (Consult Department of Chemistry)

Recommended first-year preparation: CHM 120, MAT 135/139/(140 & 150), PHY 120/130.

Second-year programme: CHM 220, 235, MAT 235/239, PHY 220/230.

Third-year programme: CHM 320, 323S, 330, 340, one half-course in Chemistry/another science/Mathematics.

Fourth-year programme: Three 400 series courses in Chemistry; one course in Science/Mathematics.

Chemistry and Biochemistry (consult Departments of Chemistry and Biochemistry — Faculty of Medicine)

Recommended first-year preparation: BIO 100/120, CHM 120, MAT 135/139, PHY 120/130.

Second-year programme: CHM 220, 235, MAT 235/239, PHY 220/230. (A BOT or ZOO course should be considered as a fifth course).

Third-year programme: BCH 320/321, 371, CHM 320/330, 340, 347S.

Fourth-year programme: Four courses in Biochemistry and/or Chemistry (mostly Organic) at least three of which should be 400 series.

Chemistry and Mathematics (See under Mathematics and Chemistry)

Chemistry (with Physics) (Consult Department of Chemistry)

Recommended first-year preparation: CHM 120, MAT 139/(140 & 150), PHY 120/130.

Second-year programme: CHM 220, 235, MAT 239, PHY 220.

Third-year programme: CHM 320, 323S, 330/340, MAT 339, PHY 221F/other Physics/MAT 244F/APM 331F.

Fourth-year programme: Two 400 series in Chemistry. One 300/400 series course in PHY, CHM 330/CHM 340/another 300/400 series PHY/CHM course.

NOTE: For a balanced training in Chemistry, a student should take each of CHM 320, 330, 340.

Computer Science (Consult Professor D. Tschritzis, Department of Mathematics)

A programme to prepare the student for professional or graduate work in Computer Science.

Recommended first-year preparation: MAT 139/(140 & 150), CSC 148F; CSC 158S, PHY 120 are suggested options.

Second-year programme: MAT (239 & 140)/(240F & 250), MAT 244F/APM 251, STA 242/252, CSC (258F & 248S); PHY 220 is a suggested option.

Third-year programme: MAT (339 & 345)/(330 & 340 & 350), APM 361F, CSC 368S, (CSC 258F in 1970-71 only); CSC 348F is a suggested option.

Fourth-year programme: CSC 438F, 448S, 458F, 468S; recommended options are APM 451F, 456S, 461F, 466S, MAT 464F.

Geology (Consult Department of Geology)

Recommended first-year preparation: CHM 120, GLG 120, MAT 134/135/139, CSC 148/108.

Other desirable science courses: AST 100, BIO 100/120, PHY 130/120.

Second-year programme: GLG 220 & 221Y, GLG 120 (if not taken previously), and three of BOT 220, CHM 220, CEN 617/CHM 235, MAT 230/234/235/239, PHY 220, 221F, (or 230), STA 232/242/252, ZOO 220, 250, 253.

Third-year programme: GLG 320 & 322 and at least one of GLG 324, 325.

Fourth-year programme: Four of GLG 420, 421, 422, 423, 424, 425, 426, 427F, 428, 490, GLG 470/PHY 421Y, PHY (308 & 324Y), one full or two half Geology courses not taken in the Third Year.

Mathematical Studies (Consult Professor R. Wormleighton, Department of Mathematics)

This programme provides a broad training in mathematics without the special emphasis on analysis that is necessary for many graduate programmes in mathematics. It is excellent preparation for prospective mathematics teachers.

Recommended first-year preparation: MAT 139/(140 & 150); CSC 148F/148Y.

Second-year programme: MAT (140 & 239)/(240F & 250); MAT 245S; STA 242/252.

Third-year programme: MAT 340/345; two mathematics options.

Fourth-year programme: Five options.

Mathematics (Consult Professor R. Wormleighton, Department of Mathematics)

This programme is designed to prepare a student for graduate work in mathematics, applied mathematics, probability or statistics.

Recommended first-year preparation: MAT 140, 150; PHY 120.

Second-year programme: APM 251, MAT 240F, 245S, 250; STA 252.

Third-year programme: MAT 330, 340, 350.

Fourth-year programme: Five options.

NOTE: Any course may be deferred to a subsequent year subject to prerequisites and co-requisites and the approval of the Undergraduate Secretary of the Department. It is recommended that students acquire a reading knowledge of at least one of German and Russian.

Students wishing to specialize in statistics or probability should include MAT 454F in their options, as well as the courses offered in their field.

Mathematics and Biology (Consult Professor J. E. Paloheimo, Department of Zoology and Professor W. A. O'N. Waugh, Department of Mathematics)

This programme is designed to meet the increasing demand for mathematically oriented biologists.

Recommended first-year preparation: BIO 100/120, BOT 100, CHM 120, MAT 139/140 and 150, PHY 120/130/140.

Second-year programme: CHM 235, MAT 239, STA 242, ZOO 223/BOT 230/240.

Third-year programme: MAT 244F & 300/319S, STA 332F & 342S, ZOO and/or BOT courses.

Fourth-year programme: STA 482F (multivariate analysis), STA 497S (stochastic processes), ZOO 478F, 479S.

Mathematics and Chemistry (Consult Department of Chemistry and Professor P. G. Norton, Department of Mathematics)

This programme can lead to graduate work in either Chemistry or Mathematics.

Recommended first-year preparation: CHM 120, CSC 148Y, MAT 140 & 150, PHY 120.

Second-year programme: APM 251, CHM 220 & 235 & 323S, MAT 240F & 250. (PHY 220 is recommended as an extra subject.)

Third-year programme: CHM 320 & 422F & 423S, MAT 340 & 350.

Fourth-year programme: MAT 330, 1½ full courses from CHM 330, 340, 420, 424F, 425S, 429Y APM 351/421F.

Mathematics and Economics (Consult Professor W. Haque, Department of Mathematics)

This programme provides a firm mathematical foundation for subsequent work in Economics.

Recommended first-year preparation: MAT 139/(140 & 150); ECO 100.

Second-year programme: MAT (140 & 239)/(240F & 250); MAT 244F/APM 251; STA 252; ECO (240F & 241S).

B.SC. PROGRAMMES

Third- and Fourth-year programme: MAT 339/350; APM (451F & 456S); ECO 332; at least four additional full courses in Economics and/or Mathematics.

Mathematics and Linguistics (Consult Professor B. Brainerd, Department of Mathematics)

A programme for students interested in the application of Mathematics to the study of the structure of language.

Recommended first-year preparation: MAT 134/135/139/(140 & 150); CSC 148; JAL 100.

Second-year programme: MAT (225 & 234)/(240F & 250); STA 242/252; LIN 230.

Third-year programme: [LIN 333/(228F & 229S)]; STA 342/352.

NOTE: Students in the second year of this programme in 1970-71 should take LIN 333 or LIN 228F and 229S in the second year and LIN 231 in the third year instead of taking these courses in the recommended order.

Fourth-year programme: LIN 450/491; MAT 409S; an additional course in mathematics.

NOTE: During the four years, the student should also have taken LIN 201/JAL 300 and also one of ANT 220, LIN 348 or a spoken Indo-European language.

Mathematics and Philosophy (Consult Professor F. Tall, Department of Mathematics and Professor A. Rosenthal, Department of Philosophy)

This programme is designed to emphasize those aspects of each discipline which are of particular interest to the other both historically and currently.

Recommended first-year preparation: MAT (140 & 150)/(139 & 225); PHL 100.

Second-year programme: MAT 224S, MAT 245S/325, MAT 239/(240F & 250); PHL (206F & 213F & 214S).

Third-year programme: MAT 340/345; STA 242/252; PHL 314F and two of PHL 315S, 317S, 327F, 328F, 329S, 330S, 331S.

Fourth-year programme: MAT 404F; PHL 408F/S.

Mathematics and Physics (Consult Department of Physics and Professor D. Masson, Department of Mathematics)

This is a strong combined programme that includes the physics core with additional mathematics and demonstrates the strong interaction of the two disciplines.

Recommended first-year preparation: MAT (140 & 150); PHY 120.

Second-year programme: MAT (240F & 250); APM 251; PHY (220 & 222S).

Third-year programme: MAT (330 & 350); APM 351; PHY (300 & 302).

Fourth-year programme: MAT 340; PHY 400/APM 421F.

Mathematics for Teaching (Consult Professor K. O. May, Department of Mathematics)

A programme to provide a deep understanding of elementary mathematics and a broad view of the subject and its applications. The first three years of the programme should include at least six full courses from the following:

MAT 100, 220, 320, first year calculus, second year calculus;

MAT 140/225, 245S/325, 314F, 410, 414F, 224S;

APM 331F, 336S; STA 232; CSC 108.

NOTE: Courses in History, Philosophy and Psychology are suggested for inclusion in the whole programme. Any of the other specialist programmes in mathematics or mathematics combined with another subject is also an excellent preparation for teaching.

Physics (Consult Department of Physics)

Recommended first-year preparation: PHY 120 or equivalent, MAT 139/(140 & 150).

Second-year programme: PHY 220, 221F, 222S, MAT 239, APM 246S, MAT 244F/APM 331F.

Third-year programme: PHY 300, 302, 303F, MAT 339, one of PHY 320, 321Y, 322, 323Y.

Fourth-year programme: Any three 400 series Physics courses.

Physiology (Consult Department of Physiology — Faculty of Medicine)

Recommended first-year preparation: CHM 120, BIO 100/120, MAT 130/135/139/150, PHY 120/130/140.

Second-year programme: ANA 200/ZOO (250 & 251), CHM 235, STA 232.

Third-year programme: PSL (322 & 373Y), BCH (320 & 370Y)/(321 & 371Y), ZOO 211.

Fourth-year programme: At least three of: PSL 424, 427, 429S, 430, 475F, 498, ZOO 441Y, 442Y, 440.

Psychology (Consult Department of Psychology)

The programme requires a minimum of seven courses (or equivalent in half-courses) including PSY 200 & 201; one of PSY 320, 321, 322; and PSY 400.

Recommended first-year preparation: PSY 100.

Second-year programme: Suggested: PSY 200F and PSY 201S.

Third-year programme: Normally: PSY 320/321/322.

Fourth-year programme: PSY 400.

Psychology and Physiology (Consult Departments of Psychology, and Physiology — Faculty of Medicine)

Recommended first-year preparation: BIO 100/120, CHM 120, MAT 130/135, PSY 100.

Second-year programme: PSY (200 & 201)/STA 232/242, ANA 200/ZOO (250 & 251), CHM 235, PHY 140 (if not taken in first year).

Third-year programme: BCH 321, PSL (322 & 373Y), two of PSY (208F & 314S), (206F & 313S), (221F & 332S).

Fourth-year programme: PHM 470/PSL 424/427/ZOO (441Y & 442Y), two of PSY 316S, 317F, 319S; PSL 498/PSY 400; one "Advanced Topics" seminar in Psychology.

Zoology (Consult Department of Zoology)

There is no prescribed programme for students specializing in Zoology, and such students also may enrol in any course offered by the Department. However, students who wish to specialize and to prepare for a career in Zoology are advised to build their programme along the following lines:

Recommended first-year preparation: BIO 100/120, CHM 120, PHY 120/130/140, and a first-year Mathematics course other than MAT 100.

Second-year programme: CHM 235, STA 232/242, and three of ZOO 220, 221, 222, 223, 224, 226. Students are advised to take BIO 300 (Terrestrial and Freshwater Biology Field Course) at the end of second year.

Third-year programme: A selection from ZOO 225, and any other 200-series courses. Students may take one or more 400-series course(s) in their third year. Students are advised to take BIO 301 (Marine Biology Field Course) at the end of the third year.

Fourth-year programme: A selection from 200- and 400-series courses.

B.COM. PROGRAMME (St. George Campus)

Commerce and Finance (Consult Department of Political Economy)

The Commerce and Finance Programme begins formally in second year and leads to the degree of Bachelor of Commerce on successful completion of the fourth year. In each year of the Programme the student is required to take six courses of which one is a free option that he may choose as he wishes.

Students wishing to enter this Programme should enrol with the Department of Political Economy at the beginning of their second and subsequent years.

Recommended first-year preparation: COM 100 & 101, ECO 102, MAT 130/134.

NOTE: Students without this preparation can enter the second year of this Programme but will find themselves handicapped in their choice of subjects in higher years.

Second-year programme:

COM 220 (or COM 100 if neither COM 100 nor 102 was taken in first year).

ECO 200/(240F & 241S).

ACT 223F & 233S or alternative second-year course approved by Supervisor of Studies.

ECO 220/STA 232.

One of COM 300*, MAT 234, ECO 101, 202 (204F & 205S), (240F & 241S), 221, 222.

One course other than COM or ECO.

*If space is available after third-year students have been accommodated.

NOTES:

(1) Students taking ECO 240F & 241S cannot take ECO 200 or 202 for credit.

(2) Students planning graduate studies in Economic Theory or Management Sciences are advised to take MAT 234 & STA 232.

Third-year programme:

Two of COM 220*, 300, 320, 400, 401, 420, 422, 424.

One of ECO 221, 222, or any ECO course in the 300-series, MAT 234, STA 342.

One of ECO 202, (204F and 205S), or any ECO course in the preceding group.

One other third-year course in COM or ECO.

One course other than COM or ECO.

*COM 220 is to be included if not taken in the Second Year.

NOTES:

(1) ECO 202 or (204F and 205S) or (240F and 241S and 332), and, ECO 220 or STA 232, and, at least one of ECO 101 or 338, 221, 322 must be completed before the end of this year.

(2) Many of the courses listed here have prerequisites, and students should check the Course Descriptions where prerequisites and co-requisites are listed.

Fourth-year programme:

COM 421; Four courses in COM and ECO selected from the 300- and 400-series including at least one in COM and one in ECO.

One course other than COM or ECO.

PREPARATION FOR STUDY IN PROFESSIONAL FACULTIES, SCHOOLS OR COLLEGES

Students who enter the Faculty of Arts and Science in order to qualify for later admission to a Professional Faculty or School such as Dentistry, Law, Library Science, Medicine, Social Work, are advised to consult the appropriate Faculty or School before devising their programme of study. Students seeking entrance to a College of Education with a view to obtaining a specialist teaching certificate should consult the Facul-

ty's Department of their proposed specialty and the College of Education regarding requirements.

Students may now satisfy the admission requirements of the Faculty of Medicine by completing a two-year programme in the Faculty of Arts and Science which includes BIO 100/120, CHM 120 & 235, MAT 130/134/135/150, PHY 120/130/140. Other courses should be chosen according to the student's interests.

ARTS AND SCIENCE

REQUIREMENTS FOR STANDING

Under the New Programme, each student in part-time attendance in the Faculty of Arts and Science devises his or her own programme by combining together each course chosen to fit the student's interests, subject only to the following:

- (a) All stated prerequisite and co-requisite requirements shall be satisfied.
- (b) Any two half-courses are equivalent to one full course; they may be from different subjects.
- (c) An extra full or half-course (not for credit towards a degree) may also be taken in each year, and standing obtained will be recorded.

In order to be considered as a candidate for a degree from the University of Toronto, a student must obtain standing in his last five courses at this University.

FIRST YEAR PROGRAMME

A student shall be said to have completed a First Year programme when he has obtained standing in five courses designated as being available to First Year students.

A student may not begin any courses not offered to First Year students until he has either:

- (a) completed a First Year programme, or
- (b) has standing in four courses of a First Year programme with an overall average (in these four courses) of at least 60%.

SECOND YEAR PROGRAMME

A student shall be said to have completed a Second Year programme when he has obtained standing in ten courses, at least three of which must be 200- or higher-series courses.

THIRD YEAR PROGRAMME AND REQUIREMENTS FOR THREE-YEAR DEGREE

A student shall be said to have completed a Third Year programme and shall be entitled to receive a Bachelor of Arts or Bachelor of Science degree when he has:

- (a) obtained standing in fifteen courses at least eight of which must be 200- or higher-series courses;
- (b) a final mark of 60% or better in each of at least eight of the fifteen courses. Of these eight at least four must be 200- or higher-series courses;
- (c) for a Bachelor of Science degree, included in the eight or more required 200- or higher-series courses at least six courses offered by one or more of the following departments: Astronomy, Botany, Chemistry, Geography,* Geology, Mathematics, Physics, Psychology, Zoology or certain courses offered by other faculties.

NOTE: A student should notify the Associate Director of Extension no later than November 20th if he wishes to receive his degree. When it is conferred, the designation "Bachelor of Arts (Three-Year)" or "Bachelor of Science (Three-Year)" will appear on his academic record.

*The following courses may be included in a B.Sc. programme: GGR 203S, 205F, 207F, 208S, 270, 301, 302F, 303S, 305S, 491.

THIRD YEAR PROGRAMME GENERAL ARTS COURSE

- (a) Students in the General Arts Course in Extension who by April-May 1969, completed at least eleven courses are required to complete their First Year by obtaining standing in six courses and their Second Year by obtaining standing in five courses including two courses in a subject of concentration, but are not required to fulfill subject group requirements.
- (b) Students with eleven courses or more, who had not completed their second year subjects of concentration by August of 1969 will be able to substitute any second year course (in the field of concentration) which has not already been taken, unless otherwise specified.
- (c) Students in the General Arts Course in Extension who by April-May 1969, have been enrolled in at least eleven courses will complete their Third Year under the same conditions as students who enrolled full time in the Third Year of the General Arts programme (16 credits for the degree).

ENTRY INTO A FOURTH YEAR PROGRAMME

A student shall be permitted to enter a Fourth Year programme only if he has completed the requirements for a bachelor's degree as described above.

FOURTH YEAR PROGRAMME AND REQUIREMENTS FOR A FOUR-YEAR DEGREE

- (a) A student shall be said to have completed a Fourth Year programme and shall be entitled to have the designation "Bachelor of Arts (Four-Year)" or "Bachelor of Science (Four-Year)" entered on his record when he has:
 - (i) qualified for a 15-course degree;
 - (ii) completed an additional five courses, no more than one of which may be a 100-series course;

- (iii) obtained a final mark of 60% or better in each of at least four of the five courses;
- (iv) for a Bachelor of Science degree, included in the twelve or more required 200- or higher-series courses at least nine courses offered by one or more of the following departments: Astronomy, Botany, Chemistry, Geography (see courses listed under "Third Year Programme"), Geology, Mathematics, Physics, Psychology, Zoology or certain courses offered by other faculties.

- (b) For the degree of Bachelor of Commerce a student must have:
 - (i) qualified for a 15-course degree;
 - (ii) obtained standing in a total of twenty-three courses as outlined in the calendar for the completion of the "Commerce and Finance Programme";
 - (iii) obtained a final mark of 60% or better in each of at least four of the six courses listed for the Fourth Year programme.

REFUSED REGISTRATION IN THE FACULTY

A student will be refused further registration in the Faculty if:

- (i) he fails four courses in his first ten attempts, or
- (ii) he fails five courses in his first fifteen attempts, or
- (iii) he fails six courses, or
- (iv) he fails to satisfy the requirements for a three-year degree in his first twenty attempts.

Failed supplemental examinations do not count as second failures.

APPLIED SCIENCE AND ENGINEERING

Prospective Engineering students who are unable to attend this University in a full-time capacity may apply for admission to the First Year Engineering Programme which is offered through the Division of University Extension in conjunction with the Faculty of Applied Science and Engineering. Admission procedures are outlined on pages 11-14. The number of applicants accepted for the First Year Engineering Programme will be limited.

Only the first year of the four year Engineering Curriculum is available through part-time study. Upon completion of the First Year Engineering Programme in the Division of University Extension, students wishing to proceed to the degree must transfer to full-time studies in the regular courses in the Faculty of Applied Science and Engineering to complete the requirements for the Bachelor of Applied Science (B.A. Sc.) degree. Those students who will be eligible to transfer to full-time

studies for the Winter Session 1971-72 must make arrangements with the Division of University Extension before May 15, 1971. The First Year of the Four Year curriculum is designed to build a strong foundation in the basic disciplines which underlie the whole field of engineering. Students must elect one of the following courses in which they expect to continue in second year - Chemical Engineering, Civil Engineering, Electrical Engineering, Geological Engineering, Industrial Engineering, Mechanical Engineering, Metallurgy and Materials Science.

In order to qualify for a completed first year of the Engineering Programme a student must obtain standing in nine courses all of which will be offered through the Division of University Extension. Eight of the nine first year courses are compulsory Engineering courses. The ninth course, an elective from courses offered by the Faculty of Arts and Science, is to be fitted in by the student at any time before the completion of the First Year Programme.

The nine first year courses must be completed within a period of four calendar years with an overall average of not less than 60%. Six Engineering courses will be available through the Division of University Extension during the Winter Session 1970-71; these courses are designated by a "+". After consulting with the Chairman for First Year Studies at the Faculty of Applied Science and Engineering the student may choose the Arts and Science elective from the Course Description section of the calendar. The Arts and Science course may be taken in any Session.

First Year +Algebra & Analytic Geometry 2410
 +Applied Mechanics 100*
 +Calculus 2411
 +Chemistry 600, 601*
 +Electricity 700*
 +Engineering Graphics 135
 +Mathematical Applications and Computer Programming 13*
 Structure & Properties of Matter 2501*
 An Elective** from the Programme of the Faculty of Arts & Science

NOTE: Structure and Properties of Matter 2501 and Algebra and Analytic Geometry 2410 will be offered in the Summer Evening Session 1971.

Second, Third and Fourth Year — Please refer to the Calendar of the Faculty of Applied Science and Engineering 1970-71 for course descriptions.

COURSE REGULATIONS

- (1) *Calculus 2411, and Algebra and Analytic Geometry 2410 are prerequisites or co-requisites for Applied Mechanics 100, Chemistry 600, 601, Electricity 700, Mathematical Applications and Computer Programming 13, and Structure and Properties of Matter 2501. Other prerequisites and co-requisites may be established at a later time.
- (2) **An Arts and Science elective is to be arranged by the student. The student's choice must be approved by the Faculty of Applied Science and Engineering.
- (3) Students must take at least 2 courses in their first calendar year of studies.
- (4) The Mathematics courses must be completed within the first 2 calendar years.
- (5) At any point in his programme, the student's overall average must be not less than the smaller of the following two numbers:
 60 or $(48 + 2N)$ where N is the total number of subjects written up to that time.

The required overall average is shown in the following table:

| N | Minimum Overall Average | N | Minimum Overall Average |
|--------------------|-------------------------|--------------------|-------------------------|
| 1 paper | 50% | 5 papers | 58% |
| 2 papers | 52% | 6 papers | 60% |
| 3 papers | 54% | 7 papers | 60% |
| 4 papers | 56% | 8 papers | 60% |
| | | 9 papers | 60% |

- (6) An Engineering student in the Division of University Extension may repeat up to two different courses in order to improve his overall average; however, a course may be repeated only once.

NOTE: Engineering students are not normally permitted to write supplemental examinations. An Engineering student, however, may petition, if he is unable to write an examination at the specified time, in order to write the examination at the next examination period.

- (7) If a student fails to obtain pass standing (50%) on more than 2 courses on the first attempt, he will not be permitted further registration or examination in the Faculty of Applied Science and Engineering.

BACHELOR OF EDUCATION PROGRAMME

Commencing in September 1970, the Division of University Extension in co-operation with The College of Education will offer courses, both Winter and Summer leading to the Bachelor of Education Degree.

ADMISSION REQUIREMENTS Eligible candidates must submit to the Office of Admissions proof of:

- (1) graduation from The College of Education in a one year High School Assistant's Programme Type "B" prior to May 1970 and
- (2) possession of the Permanent High School Assistant's Certificate.

REQUIREMENTS FOR THE DEGREE A candidate must obtain standing in two thirty-hour courses* of the present one-year programme leading to the Bachelor of Education Degree.

PROGRAMME

(a) One of the required courses* must be selected from Part II Educational Theory (see course descriptions).

(b) One of the required courses* must be selected from Part IV Additional Related courses* (see course descriptions).

*For fees purposes, each of these courses is considered to be a half course.

NOTES

1. The winter programme will be divided into two semesters. Semester 1 will run from September 21 to December 18, 1970. Semester 2 will run from January 4 to April 9, 1971.
2. The course* in each subject will involve thirty class hours.
3. A candidate may take one or two courses* in Winter or Summer Session.
4. A candidate will be permitted to take a maximum of 2 courses* in one semester.
5. It may be necessary to limit enrolment in certain courses*.
6. A course* may not be offered unless sufficient candidates apply.

DEGREE PROGRAMME FOR GRADUATES OF DIPLOMA SCHOOLS OF NURSING

This course provides a professional preparation for Nursing in both the hospital and public health field, for teaching in schools of nursing and supervision of nursing service. The course leads to the degree of Bachelor of Science in Nursing (B.Sc.N.).

The arrangement of the course covers a three-year pe-

riod, of which the first and second years are available through the Division of University Extension. Study in the humanities and sciences is associated with nursing throughout the course. Content in public health nursing and concepts of mental health are associated with the teaching of nursing in each year.

ADMISSION AND REGISTRATION

(a) Ontario Grade 13 Requirements:
Candidates for admission in the fall of 1970 to the first year of the Degree Course for Graduates of Diploma Schools of Nursing will be required to offer standing in at least four Grade 13 subjects comprising at least seven credits.

The specific subject requirements are: English or History, Chemistry, and optional subjects to bring

the total number of credits to seven.

An average of 60% is required. Credits must be chosen from the Grade 13 subjects approved for purposes of admission to the University.

Candidates offering certificates other than grade 13: Specific details on subjects and standards required for the course must be requested well in advance of the application deadline.

(b) Mature Students:

Students twenty-five years of age or older, residents of Ontario for at least one year, who have a sound academic record and a minimum of 60% in at least two Grade 13 subjects or their academic equivalent, to include one of English or History and one of Biology or Chemistry, will be considered for admission as mature students. Possession of the minimum requirements does not ensure selection.

Mature Students (effective 1971-72 session):

A candidate of mature age (24 years of age or older on October 1st of the Winter Session, or July 15th of the Summer Session), who has lived in Ontario for a minimum of one year and is normally a resident of Ontario, may request special consideration for admission to the School if she has obtained high standing in two pre-university courses (or their equivalent), one of which must be Chemistry, offered through the Division of University Extension (or an equivalent course), and obtains standing in such other courses as may be required. The candidate's previous secondary school will also be taken into account. Possession of the minimum requirements does not ensure selection.

(c) Application Procedures:

Candidates should apply to the Office of Admissions, Simcoe Hall, or the Division of University Extension, 84 Queen's Park, for admission. The application form and supporting documents should be submitted as soon as possible and not later than August 1, to the Office of Admissions, University of Toronto, Toronto 181.

NOTE: Nursing admits students only once a year; students who do not apply by August 1 will not be admitted until the fall session of the following year.

(d) Supporting Documents:

Candidates are required to submit a transcript of their professional training. If a certificate is not available at the time of application, candidates must indicate the exact name of the certificate to be presented for admission and the subjects included therein, as well as the approximate date available. A notarized English translation must accompany certificates which are in a language other than English or French.

Supporting documents also include all final secondary school certificates held. These certificates must include the subjects studied and grades obtained.

Only Registered Nurses or those eligible for registration are accepted in the Degree Course for Graduates of Diploma Schools of Nursing.

In addition, a student who has previously attended a University must submit the following:

- (i) an official transcript issued by the University or College previously attended. Transcripts or a supporting letter must indicate that the candidate has been granted honorable dismissal and is eligible for readmission to the institution concerned in the session for which she seeks admission to the University of Toronto.
- (ii) official statements or calendars giving full information on the content of the University courses covered by the transcripts submitted.

First Year

Biological Chemistry 103
Biology 100 or 120

- ** English
Nursing 110
Psychology 100
** elective in the Humanities or Social Sciences

Second Year*

Nursing 210
Physiology 321, 371
Preventive Medicine 300

- ** Psychology
** elective in the Humanities or Social Sciences

Third Year (full-time only)

Nursing 310
Nursing 311
Nursing 401
Psychology 319

- ** elective in the Humanities or Social Sciences

*Although all second year courses are available through part-time studies, students should note that several of these courses will be offered only in the daytime. Only those students who obtain a "B" or better average in five of their first six credits may continue the second year programme through Extension.

- **For information on the Humanities and Social Sciences, see pages 87-115 of the calendar. One full credit or two half credits are required to complete each elective.

TIME LIMIT Students will be required to complete the Degree Course for Graduates of Diploma Schools of Nursing within eight (8) years from

the time of initial registration. When a period of over five (5) years has elapsed between the completion of Nursing 110 and Nursing 210, or Nursing 210 and Nursing 310, these subjects will be evaluated in terms of the content, when the applicant seeks admission to the second or third year.

TRANSFER TO FULL-TIME STUDY Students wishing to transfer to full-time study should complete the full year's work in Extension. Transfer forms are available from the Division of University Extension, 84 Queen's Park, or by calling 928-2405, and should be submitted well before the session at which full-time studies will commence.

PHYSICAL AND HEALTH EDUCATION PROGRAMME

Commencing in September, 1970 courses leading to the FIRST YEAR of the Degree of Bachelor of Physical and Health Education will be offered through the Division of University Extension in conjunction with the School of Physical and Health Education.

Interested students who are unable to attend this University in a full time capacity may apply for admission to the Programme through the Division of University Extension. It should be noted, that after a candidate has completed all of the First Year courses it will be necessary to continue the degree programme as a full time student.

The number of applicants accepted into the Degree Programme is limited.

ADMISSION REQUIREMENTS Admission procedures are outlined on pages 12-14.

OPPORTUNITIES FOR GRADUATES Wide career opportunities are available to graduates of the B.P.H.E. Programme in the following areas: Physical Education; Recreation; Health Education; Rehabilitation and Teaching.

Graduates wishing to teach in the secondary schools of Ontario may qualify for admission to the Type A Course at a College of Education leading to the interim High School Assistant's Certificate in Physical Education. Graduates may teach in the elementary schools of Ontario after attendance at an Ontario Teachers' College for one year.

Masters and Ph.D. degrees may also be pursued by students interested in research. To be considered for admission to graduate study a candidate must complete the four year Physical and Health Education programme with an average of B or better.

DEGREE REQUIREMENTS

First Year:

Physical Education 100
Physical Education 103
Psychology 100
Biology 100 or 120
Two Arts and Science Options.

Second Year:

Physical Education 200
Physical Education 201
Physical Education 203
Anatomy 221
Psychology 202 and 301
Two Arts and Science Options.

Third Year:

Physical Education 300
Physical Education 307
Health Education 308
Kinesiology 309
Physiology 321, 371
Two Arts and Science Options.

Fourth Year:

Physical Education 400
Physical Education 401
Physical Education 403
Physical Education 405
Physical Education 490
Hygiene and Preventive Medicine
Physiology of Physical Activity
Two Arts and Science Options.

PHYSICAL ACTIVITY Students will be required to achieve a level of proficiency in selected games, sports and physical activities in each of the four years. All students will be assessed in physical activity courses. The assessment will appear on a transcript.

NOTE: For options in the Faculty of Arts and Science refer to the course descriptions pages 87-115.

GENERAL REGULATIONS

REFUNDS AND WITHDRAWALS In order to become eligible for a refund of fees on withdrawing the student must write to the Division of University Extension and return his Admit-to-Lectures card for cancellation. He must state specifically the date of his last attendance in the lecture(s) concerned.

A student is allowed a maximum of four weeks from the date of withdrawal to give notice. If he fails to follow the above instructions in full the amount of the refund will be reduced proportionately. In case the student neglects to state the date of withdrawal the postmark of his letter will be used as the effective date and requests for further consideration of the amount of the refund will not be considered. **Merely ceasing to attend lectures, or informing the instructor though it is courteous to do this, does not constitute official withdrawal.**

SCHEDULE OF REFUNDS

Winter Session

Full Courses:

For students withdrawing between the first day of classes and December 31st—\$47.50

For students withdrawing on or after January 1st —No refund

Half Courses:

For students withdrawing in the first six weeks of classes —\$23.75

For students withdrawing after the first six weeks of classes —No refund

Summer Evening Session

Full Courses:

For students withdrawing between the first day of classes and June 30th —\$47.50

For students withdrawing on or after July 1st —No refund

Half Courses:

For half courses —No refund

Summer Day Session

Full Courses:

For students withdrawing within the first three weeks of classes —\$47.50

For students withdrawing after the first three weeks of classes —No refund

Half Courses:

Half courses will not be offered in the Summer Day Session.

Precise dates are not stated for all sessions as these will vary from year to year. In cases of withdrawal for health or compassionate reasons the refund will be computed on an individual basis.

NOTE: Students who do not write the Final Examination or who withdraw from a course after February 15 of the Winter Session (November 20 for a half-course taken in the Fall Session) or June 30 of the Summer Evening Session or August 1 of the Summer Day Session, except for medical or similar reasons, for which proof must be submitted, will be considered for purposes of re-enrollment to have failed to obtain standing in the course.

Credit will be retained for any half-course successfully completed and discredit noted for any half-course failed.

SUBJECT CHANGES A student may request, in writing, changes of subject, which are in accordance with the calendar regulations. Changes will be dealt with as follows:

Winter Session

- (a) From the beginning of the session to October 15 granted if approved by the Associate Director, Division of University Extension.
- (b) October 15 to November 1 granted if approved by the head of the teaching department concerned.
- (c) After November 1, granted only in exceptional circumstances.

Summer Evening Session

- (a) From the beginning of the session to May 31, granted if approved by the Associate Director, Division of University Extension.
- (b) After May 31, granted only in exceptional circumstances.

Summer Day Session

- (a) From the beginning of the session to July 12, granted if approved by the Associate Director, Division of University Extension.
- (b) After July 12, granted only in exceptional circumstances.

PROCEDURE FOR EXAMINATIONS

1. The Annual (Spring) examinations in the Faculty of Arts and Science, the Faculty of Applied Science and Engineering, The College of Education, the School of Nursing, the School of Physical and Health Education will begin on April 19 and will continue for approximately three weeks. The August examinations will begin on Monday of the week following completion of Summer Session lectures.
2. Students in the Division of University Extension are no longer required to submit applications for examinations for the subjects in which they are registered during either a Winter or Summer Session.

Only those listed below need apply:

- (a) Students who have been granted supplemental examination privileges.
- (b) Students who were unable to write at the usual examination period, but who have been granted exemption from the academic penalty and are permitted to write at a subsequent examination period.
- (c) Students who wish to write a subject at outside Centres.
- (d) Students who wish to rewrite a subject in which they have previously obtained standing for the purpose of upgrading their final mark.

NOTE: Engineering students are not normally granted permission to write supplementals. An Engineering student, may petition, however, if he is unable to write an examination at the specified time in order to write the examination at the next examination period.

3. Where applications for examinations are required they must be submitted by:
 - (i) November 30 for the following Annual (Spring) examinations.
 - (ii) July 10 for the following August examinations.
 - (iii) A penalty fee of \$1 per day to a maximum of \$20 will be charged on all applications for examinations received after November 30, for the following Annual (Spring) examinations and July 10, for the following August examinations. Applications for examinations submitted more than 20 days past the due date will be accepted only in exceptional circumstances.

Students to whom above sections (a) and (b) apply will normally receive Application Forms from

the Secretary, Faculty of Arts and Science or the School of Nursing when granted the privilege to write.

Students in category (c) and (d) must request that an Application Form be sent to them.

Failure to receive the Application Form in the mail does not absolve a student from the responsibility for submitting an Examination Application by the due date. Additional Application Forms may be obtained from the Division of University Extension.

4. Examinations for students registered in Extension are conducted by the Faculty of Arts and Science, the Faculty of Applied Science and Engineering, The College of Education, the School of Nursing, the School of Physical and Health Education. **Examination numbers, under which candidates write, will be mailed to students prior to the final examination.** It is, therefore, extremely important that students notify the Division of University Extension of any change of address during the year. **Students are required to show their admit-to-lectures cards when writing examinations.**
5. The Annual examinations are held at the University and at the following centres: Banff, Calgary, Charlottetown, Edmonton, Fredericton, Halifax, Kapuskasing, Kenora, Kingston, Kirkland Lake, London (Ont.), London (Eng.), Montreal, North Bay, Ottawa, Quebec, Regina, St. John's (Nfld.), Saskatoon, Sault Ste. Marie, Sudbury, Thunder Bay, Vancouver, Whitehorse (Yukon), Windsor, Winnipeg. Normally only students who have supplemental privileges and who are not in attendance in the session for which examinations are written, will be permitted to write at an Outside Centre. Application to write at an Outside Centre must be made not later than the preceding November 20 for the Annual (Spring) examinations and not later than the preceding July 10 for the August examinations.
6. A provisional time-table will be posted in buildings on the campus approximately two weeks prior to the period of examinations to permit students to report clashes. The final time-table will be posted in buildings on the campus about a week later. **Every student is responsible for acquiring time-table information for himself. Information regarding dates of specific examinations cannot be given by telephone.**
7. Results of examinations will be mailed to each candidate.

GENERAL REGULATIONS

STANDING IN A COURSE (OR HALF-COURSE)

- (a) The following scale of marks is recommended for use in all courses and half-courses in all years:

Arts and Science
The College of Education
Nursing
Physical & Health Education

| Mark | Grade |
|-----------|-------|
| 80 - 100% | A |
| 70 - 79% | B |
| 60 - 69% | C |
| 50 - 59% | D |
| Below 50% | Fail |

Applied Science and Engineering

| Mark | Grade |
|-----------|-------|
| 75-100% | 1 |
| 66- 74% | 2 |
| 60 - 65% | 3 |
| 50 - 59% | 4 |
| Below 50% | 5 |

- (b) In the case of half-courses, standing must normally be obtained in each half-course attempted. Marks in two half-courses may not be averaged to produce standing in a whole course equivalent, except where the Department(s) concerned specify that this will be permitted for particular and stated combinations of two half-courses.

TERM MARKS AND EXAMINATIONS Final examinations will normally be held in 100-series courses. The method of arriving at a final mark for each course (or half-course) will be decided by the Department offering the course. In those courses where final examinations are required these will be held in a final examination period arranged by the Faculty.

Students in Second, Third and Fourth Years and Special Students will not be permitted to write supplemental examinations in 100-series courses and none will be offered in 200-, 300- and 400-series courses.

A student whose attendance at lectures or laboratories, or whose work is deemed by the council of the faculty to be unsatisfactory, may have his registration cancelled at any time by the council.

1. A candidate will not be allowed to present himself for examination in any subject until he has paid fees in full, attended lectures in the subject during one academic session and obtained a term mark.

2. All term assignments must be submitted before the beginning of the relevant examination period.

3. The marks for term work in each subject will be determined in the manner considered to be most suitable by the department concerned.

4. The ratio of term marks to examination marks in each subject will be determined by the Department.

5. A student who does not write the final examination at the end of any session or who withdraws from a course after February 15 of the Winter Session (November 20 for a half-course taken in the Fall Session) and June 30 of the Summer Evening Session or August 1 of the Summer Day Session, except for medical or similar reasons for which proof must be submitted, will be considered to have failed to obtain standing in the course.

6. Petitions for consideration with regard to the Annual (Spring) or August examination on account of sickness, domestic affliction, or other causes, must be filed with the Associate Director, Division of University Extension, on or before the last day of the examination, together with a doctor's certificate which includes a statement that the candidate was examined at the time of the illness, or other evidence. These must be submitted before the end of the examination period in question.

A student who satisfies this requirement will normally be permitted to write the examination(s) at the next available examination period without academic penalty or payment of the supplemental examination fee. If the student does not write at that time or if he fails to achieve standing he shall forfeit his term mark(s) and be required to re-enrol. Aegrotat standing, i.e. standing in a subject or subjects without being required to write the final examination(s), is granted only once to any student and is seldom granted unless such standing is required to complete the degree programme.

7. A student is required to clear a condition by writing a supplemental examination during the next examination period. If standing in the subject has still not been obtained, the candidate must re-enrol in it, secure a new term mark, and write the examination under the same conditions. Should he not succeed in obtaining standing in these further attempts, he will not be allowed to take the subject again.

NOTE: Engineering students will not normally be allowed supplemental privileges.

8. A student who fails a subject should consult the Department concerned with respect to the content of that subject before rewriting the examination.

9. No special examination will be set in any subject because of change in its content.

10. Students will be refused the privilege of going over their final examination papers with the examiners concerned. However, students may petition to have their examination marks re-checked on the payment of a fee of \$5.00 per subject. This fee will be refunded if an error in reporting a mark is detected.

11. Students may rewrite one or more subjects in which they have standing in order to obtain a higher grade in those subjects, provided that they do so only on one occasion and that they do so at the next set of examinations.

12. An Engineering student may not re-write any examinations. He may, however, repeat up to two different courses in order to improve his overall average; the student may repeat one course only once.

COURSE OPTIONS Students who wish to enrol in fewer than five courses at any time may be admitted to the Division of University Extension. Such a student will normally register in Winter Evening courses or Summer Evening or Summer Day courses, but may, with the permission of the Associate Director, Division of University Extension, enrol in Winter Day courses.

MATURE STUDENTS ON PROBATION

Candidates accepted by the Senate's Committee on Admissions as mature students are admitted on probation.

(a) Arts and Science

A mature student, registered in a degree programme in the Division of University Extension, who does not meet in full the published admission requirements, and who has been admitted as a mature student on probation, must obtain standing on the initial attempt in at least three of his first five subjects in order to have his probationary status removed. If the student fails more than two of his first five subjects, he will not be allowed to re-register in any degree course in the University of Toronto until he presents in full the published admission requirements.

(b) Nursing

A mature student in Nursing registered in the Division of University Extension, who does not meet in full the published admission requirements, and who has been admitted as a mature student on probation, must obtain standing on the initial attempt in at least five of his first six subjects in order to have his probationary status removed. If the student fails more than one of his first six subjects, he will not be allowed to re-register in any degree course in the University of Toronto until he presents in full the published admission requirements.

NOTE: A student on probation who fails to obtain standing in one subject and subsequently successfully passes the supplemental examination in that subject is nonetheless considered to have once failed to obtain standing.

(c) Physical and Health Education

A mature student, registered in a degree programme in the Division of University Extension, who does not meet in full the published admission requirements, and who has been admitted as a mature student on probation, must obtain standing on the initial attempt in at least three of his first five subjects in order to have his probationary status removed. If the student fails more than two of his first five subjects, he will not be allowed to re-register in any degree course in the University of Toronto until he presents in full the published admission requirements.

APPEALS A student wishing to appeal to the Senate against a decision of a Faculty Council should consult the Associate Director, Division of University Extension, about the preparation and submission of his petition to the Secretary of the Senate.

INDEX TO COURSES AND SUBJECTS

| | | | | | |
|---|-----|------------------------------------|------------------------------------|-----|------------------------------------|
| Accounting | COM | (Political Economy) | Indian Studies | EAS | (East Asian Studies) |
| Actuarial Science | ACT | (Mathematics) | Islamic Studies | ISL | |
| Akkadian | NES | (Near Eastern Studies) | Italian | ITA | (Italian and Hispanic Studies) |
| Anthropology | ANT | | Japanese | EAS | (East Asian Studies) |
| Applied Mathematics | APM | (Mathematics) | Latin | LAT | (Classical Studies) |
| Arabic | ISL | (Islamic Studies) | Linguistics | LIN | (See also Anthropology) |
| Aramaic | NLA | (Near Eastern Studies) | Mathematics | MAT | |
| Astronomy | AST | | Microbiology | MBL | |
| Biology | BIO | | Music | MUS | |
| Botany | BOT | | Near Eastern History | NES | (Near Eastern Studies) |
| Chemistry | CHM | | Near Eastern Languages | NES | (Near Eastern Studies) |
| Chinese | EAS | (East Asian Studies) | Persian | ISL | (Islamic Studies) |
| Commerce | COM | (Political Economy) | Philosophy | PHL | |
| Computer Science | CSC | (Mathematics) | Philosophy (St. Michael's College) | PHL | |
| Czech and Slovak | SLA | (Slavic Languages and Literatures) | Physics | PHY | |
| Economics | ECO | (Political Economy) | Polish | SLA | (Slavic Languages and Literatures) |
| Egyptian | NLA | (Near Eastern Studies) | Political Science | POL | (Political Economy) |
| English | ENG | | Psychology | PSY | |
| Ethics | PHL | (Philosophy) | Religious Studies | REL | |
| Fine Art | FAR | | Russian | SLA | |
| French | FRE | | Sanskrit | EAS | (East Asian Studies) |
| Geography | GGR | | Serbo-Croatian | SLA | (Slavic Languages and Literatures) |
| Geology | GLG | | Sociology | SOC | (Sociology) |
| German | GER | | Spanish | SPA | (Italian and Hispanic Studies) |
| Greek | GRK | (Classical Studies) | Statistics | STA | (Mathematics) |
| Greek and Latin Literature in Translation | GLL | (Classical Studies) | Syriac | NES | (Near Eastern Studies) |
| Greek and Roman History | GRH | (Classical Studies) | Turkish | ISL | (Islamic Studies) |
| Hebrew | NES | (Near Eastern Studies) | Ukrainian | SLA | (Slavic Languages and Literatures) |
| Hellenistic Greek | NES | (Near Eastern Studies) | Urdu | ISL | (Islamic Studies) |
| Hindi | EAS | (East Asian Studies) | Zoology | ZOO | |
| History | HIS | | | | |
| History and Philosophy of Science | HPS | | | | |

ARTS AND SCIENCE

NOTE: In order to preserve the quality of instruction in the Faculty it may be necessary for departments to re-strict enrolment in certain courses (especially seminars) by giving preference to those students who, in the judgment of the department or the professors, have the best qualifications.

KEY TO COURSE DESCRIPTIONS

Under each teaching department, courses are listed with their identifying three-letter code and three-digit number, e.g., ANT 100 — Anthropology 100. The J prefix (e.g., JAH 324) indicates a course given jointly by members of two departments (in this case Anthropology and History), and the FS prefix (e.g., FST 200) indicates an interdisciplinary course sponsored by the Faculty. If there is no suffix after the course number, the course is a full course given throughout the whole academic year (September to May).

E—a course given at Erindale College only.

F—a half-course given in the First (Fall) Term only.

S—a half-course given in the Second (Spring) Term only.

Y—a half-course given continuously throughout the whole academic year.

Where applicable, the course description is followed by a list of those other courses with which the course in question may not be combined in a degree programme because of similarity of content; and finally by the prerequisites and co-requisites for the course. Generally speaking, the courses listed refer to the course codes and numbers both of this calendar and also of the 1969-70 calendar; specific reference to courses in the 1969-70 calendar is indicated by a dagger (†). Students who wish courses, other than those stated, to be considered as equivalent prerequisite or co-requisite preparation should consult the departments concerned.

The solidus symbol (/) means OR

The comma (,) or the ampersand symbol (&) means AND

NOTE: No two of the following courses may be combined in any degree programme:

ANT 451, ECO 220, GGR 270, GLG 221Y, POL 206, PSY (200F and 201S), SOC 201, STA 232, 242, 252.

For the information of students more courses are described in the following pages than are included in the timetable.

COURSE DESCRIPTIONS

ANTHROPOLOGY

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

ANT 100 Introduction to Anthropology

An introduction to the Department and subject, stressing the unity and diversity of anthropology. In proceeding through the origins and development of *Homo sapiens* and the living populations, the growth, diversity and structure of societies, cultures and languages, this course will cover all fields of anthropology. These are, in order of presentation, physical anthropology, archaeology, social and cultural anthropology and linguistics.

ANT 100E Introduction to Anthropology

A survey of the socio-cultural, pre-historic and biological aspects of man including the origin and development of *Homo sapiens* and the cultural mechanisms that enable man to adapt to his environment.

JAL 100 Introduction to General Linguistics

A general introduction to linguistics with main emphasis on descriptive linguistics. (See also under Linguistics.)

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

ANT 201 North American Prehistory

An intensive survey course of North American history from the time of man's entry into the New World to the historic period. Major prehistory culture areas will be presented with representative archaeological sites being discussed in depth. Major theories and approaches will be demonstrated through the medium of such study.

ANT 203 Introduction to Physical Anthropology

An introduction to physical anthropology and human biology. The study of human evolution, viewed against the background of primate evolution, in past and present populations of man, paying particular regard to the genetical aspects of evolution. A comprehensive laboratory course is offered in conjunction with the lectures.

ANTHROPOLOGY

ANT 204 **Social and Cultural Anthropology**

The study of social organization and structure including belief systems, kinship and marriage, politics and ecology.

ANT 241 **North American Indian in Transition**

A discussion of the established culture areas and types existing in precontact and early contact times in North America followed by an analysis of the problems arising out of contacts between North American Indians and Euroamericans.

JAL 300 **Sociolinguistics**

(See also under Linguistics)

ANT 311F **Archaeological Field Work**

ANT 312S **Archaeological Laboratory Analysis**

ANT 340 **Political Anthropology**

Prerequisite: ANT 204 or instructor's permission.

ASTRONOMY

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

AST 100 **Introduction to Astronomy**

A general survey of astronomy giving a descriptive treatment of the nature of solar and sidereal systems and the present conception of the structure of the universe. This course is intended for students **not** specializing in science. (May not be combined with AST 200F/220 in any degree programme.)

BIOLOGY

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

BIO 100 **Principles of Biology**

An introductory biology course emphasizing the role of physical and chemical principles in life processes. Lectures and laboratories will stress organization and metabolism of cells and organism including nutrients, energy cycles and physiological regulation. Genetic mechanisms, reproduction and evolution of plants and animals will also be considered.

BIO 100E **The Study of Life**

Organized around three major abstract concepts: Time (Evolutionary Processes and Products), Energy (Its Procurement and Utilization by Living Organisms), and Information (The Organization of Living Systems). It presents an integrated study of life at four levels: molecular, cellular, organismal, and social; leading the student to an awareness of the five unique characteristics of living material, i.e. Organized Structure, Specialized Function, Growth and Development, Heredity, and Evolution. Practical sessions will introduce the student to a wide range of material and techniques. Recommended for all students considering subsequent courses in Biology.

BIO 120 **Evolutionary and Environmental Biology**

A biology course relating the study of plants and animals to evolution. Lectures and laboratories will consider briefly the origin of life and cellular processes, and will stress genetic mechanisms, adaptations of plants and animals, populations, ecological systems, and man in his environment. Intended primarily for students with Grade XIII Biology.

Prerequisite: None (XIII BIO recommended.)

BOTANY

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

BIO 100 **Principles of Biology**

See description under "Biology."

BIO 120 **Evolutionary and Environmental Biology**

See description under "Biology."

Prerequisite: None (XIII BIO recommended.)

BOT 100 **Introduction to Plant Biology**

A basic botany course covering such topics as the structure, function, reproduction and uses of plants. Lectures and laboratories will also include a survey of the major plant groups.

COURSES OPEN TO SECOND-
AND HIGHER-YEAR STUDENTS

BOT 330 **Plant Ecology**

A lecture and laboratory course dealing with the interrelations of plants with the environment. Both terrestrial and aquatic habitats will be considered.

CHEMISTRY

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

CHM 100 **Contemporary Chemistry**

A course for those interested in learning something about modern chemistry and its relationship, dependency and impact on other fields of knowledge. Emphasis is placed on philosophical concepts of science and the role of chemistry in modern technological society.

(May not normally be combined with CHM 120 in any degree programme.)

CHM 120 **Basic Concepts of Modern Chemistry**

Introduction to the concepts of thermodynamics leading to a discussion of chemical equilibrium. Atomic and molecular structure and modern theories of chemical bonding. Chemical reactivity in relation to molecular structure.

(May not normally be combined with CHM 100 in any degree programme.)

Prerequisite: XIII CHM, MAT A. (Students with XII CHM and XIII MAT A may enrol if they take an additional two-hour/week tutorial for the first term.)

Co-requisite: MAT 130/134/135/139/150.

CHM 120E **Basic Concepts of Modern Chemistry**

Current knowledge of the electronic structures of atoms and molecules is used to understand the Periodic Table and theories of chemical bonding. Introduction to organic chemistry. Elementary concepts of chemical thermodynamics and their application to chemical equilibria. Reaction kinetics and chemical reactivity in relation to structure and mechanism.

Pre-requisite: XIII CHM and MAT A (Those without XIII CHM may be allowed to take this course by permission of the instructor.)

Co-requisite: MAT 135 & PHY 110 recommended for those intending to specialize in chemistry.

COURSES OPEN TO SECOND-
AND HIGHER-YEAR STUDENTS

CHM 235 **Structure and Synthesis in Chemistry**

A course emphasizing structure and bonding in inorganic and organic compounds and their study by spectroscopic and other physical methods. The last part of the course presents fundamental concepts of organic chemistry. The laboratory, coupled with an organized tutorial programme, introduces students to the theory and practice of basic laboratory techniques and to the synthesis and identification of organic and inorganic compounds.

Prerequisite: CHM 120.

CLASSICAL STUDIES

GREEK

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

GRK 100 **Introductory Greek with Selected Readings**

This course is designed to introduce beginners to the ancient Greek language and to prepare them for the reading of Greek literature.

GREEK AND ROMAN HISTORY

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

GRH 100 **Greek and Roman Civilization**

Its political, economic and cultural evolution, beginning in an age of independent city-states, reaching rich maturity in the Hellenistic age of Great Powers, and culminating in the multiracial and multicultural Roman empire; its place in world history.

GRH 190 **Urban Environment in the Greek-speaking World**

The development of political and social institutions centered on the city from 600 B.C. to A.D. 200. The readings for the course, original sources in translation, are chosen to show the characteristics of Greek city life. Modern environmental studies are used to elucidate the ancient experience.

Prerequisite: None [GRH 100 (or †GRH 190) recommended]

GRH 201 **Greek History to the Death of Alexander**

A study of political, economic and intellectual development in the youthful creative phase of Classical Civilization.

GRH 202 **History of Rome from its Foundation to 31 B.C.**

Political, economic and cultural development accompanying Rome's evolution from city-state to world empire.

GRH 203 **The Roman Empire**

Constitutional, economic, military and religious problems of a world state and a declining civilization.

GRH 313 **The Julio-Claudian Emperors**

Prerequisite: None [GRH 100 (or †GRH 190) recommended]

GREEK AND LATIN LITERATURE IN TRANSLATION

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

GLL 190 **Greek and Roman Religion and Mythology**
With selected readings in the ancient sources.

GLL 200 **Greek and Roman Drama**
With a study of selected plays of Aeschylus,
Sophocles, Euripides, Aristophanes, Menander,
Plautus, Terence and Seneca.

LATIN

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

LAT 100 **Introductory Latin**
This course is designed to acquaint the student
with the essentials of the Latin language and to
introduce him to Roman literature.

LAT 120F **The Poetry of Catullus**
Selections from the work of Catullus, including
both his love poems and his satiric epigrams.
This course will concentrate on the literary value
of Catullus' work. It will also include study of the
Latin language.
Prerequisite: XIII LAT/LAT 100/130.
Co-requisite: LAT 121/122/123.

LAT 121S **The Poetry of Horace**
Selections from the Odes of Horace. This course
will concentrate on the literary value of Horace's
lyric poetry. It will also include study of the Lat-
in language.
Prerequisite: XIII LAT/LAT 100/130.
Co-requisite: LAT 120/122/123.

LAT 122S **The Life and Times of Julius Caesar**
Suetonius' biography *The Divine Julius* will be
read for the light it sheds on the character and
political career of Caesar, the key figure in the
overthrow of the Roman Republic. The course
will also include study of the Latin language.
Prerequisite: XIII LAT/LAT 100/130.
Co-requisite: LAT 120/121/123.

LAT 123S **Cicero and Roman Oratory**
Reading of *Cicero Pro Caelio*. This speech, which
deals with a cause celebre in the circle of Catul-
lus, will be studied for the light which it sheds
on social life at the end of the Roman Republic
and to illustrate Cicero's skill as an orator. The
course will also include study of the Latin lan-
guage.
Prerequisite: XIII LAT/LAT 100/130.
Co-requisite: LAT 120/121/122.

COURSES OPEN TO SECOND-
AND HIGHER-YEAR STUDENTS

LAT 222 **Christian and Mediaeval Latin**
Selections of prose and poetry.
Prerequisite: LAT 100/130 or two of LAT
120F/121S/122F/123S.

EAST ASIAN STUDIES

(See also Chinese, Indian and Japanese below)

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

EAS 102 **History of East Asian Civilization**
Selected topics to highlight the crucial develop-
ments and problems in the histories of China and
Japan. Main emphasis is on gradual develop-
ments and changes. Provides a background for
those who may subsequently wish to proceed fur-
ther in the study of Chinese and Japanese civili-
zations.
(May not be combined with HIS 280 in any de-
gree programme.)

EAS 116 **Introduction to Buddhism**
An historical and doctrinal introduction to
Buddhism with its various schools.

EAS 124 **Chinese and Japanese Literature in Trans-
lation**
Literature as a reflection of the life and emotions
of a culture and the individuals within it. The
Chinese term is built around individual explora-
tion (intensive or extensive as you wish), with
discussion dealing with common concerns and
problems arising therefrom. The Japanese term is
built around an intensive discussion of a com-
mon core of brief selections which span Japan's
literary history, both in time and in genre. Enrol-
ment limit: 30.

COURSES OPEN TO SECOND-
AND HIGHER-YEAR STUDENTS

EAS 392 **The Historiography of East and South Asia**
A seminar on historiography in China, India and
Japan in the ancient, medieval and modern peri-
ods and on modern historiography generally of
East and South Asia. Open to students without
language prerequisites and based on translated
works. With permission of the Department.

CHINESE

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

EAS 100 **Introductory Modern Standard Chinese**
An introductory course in speaking, reading, and
writing Chinese (Mandarin).

COURSES OPEN TO SECOND-
AND HIGHER-YEAR STUDENTS

- EAS 200 Intermediate Modern Standard Chinese**
A continuation of EAS 100. Further training in speaking, writing and reading the language.
Prerequisite: EAS 100.
- EAS 332 Advanced Modern Standard Chinese**
Grammatical and semantic interpretation of Modern Chinese texts, combined with conversational Chinese.
(May not be combined with †EAS 320 in any degree programme.)
Prerequisite: EAS 200.

INDIAN

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

- EAS 112 Introduction to Indian History**
An introduction to the study of the development of Indian civilization. The course presents an outline from the origins of civilization in India down to the present day, tracing the continuity as well as the changes in Indian society and its cultural traditions.

JAPANESE

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

- EAS 120 Introductory Modern Japanese**
An introductory course in speaking and writing Japanese. Elementary grammar. Hiragana and basic characters.
- EAS 222 Super History of Japan**
Seminars on topics in the political, social, intellectual and religious history of Japan. The general aim is to understand both the construction and maintenance of a revolution-proof society on the edge of the old Asian world, and its fate in the modern international world. With permission of the Department.

COURSES OPEN TO SECOND-
AND HIGHER-YEAR STUDENTS

- EAS 220 Intermediate Modern Japanese**
The course aims to equip students with basic skills for reading modern Japanese prose through careful structure analysis, acquisition of basic working vocabulary and oral drill.
Prerequisite: EAS 120.
- EAS 224 Japanese Poetry and Theatre in Translation**
Reading and discussion of the major works of Japanese poetry accessible in translation. Discus-

sion of Japanese theatre through the media of films, slides, records and translated texts.
Poetry: Manyōshū, Kokinshū, Shinkokinshū, haiku of Bashō, Buson, Issa and the free verse of modern poets.

Drama: Nō, Kyōgen, Bunraku and Kabuki.
NOTE: Enrolment limited to 20.

- EAS 320 Advanced Modern Japanese**
Reading and grammatical analysis of texts by modern authors.
Prerequisite: EAS 220.

ENGLISH

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

- ENG 108 Forms of Twentieth-Century Literature**
Five of the following novels: Conrad, *Heart of Darkness*; Lawrence, *Sons and Lovers*; Woolf, *To the Lighthouse*; Hemingway, *Farewell to Arms*; Fitzgerald, *The Great Gatsby*; Waugh, *A Handful of Dust*; Faulkner, *Light In August*; a more recent novel to be selected. Five of the following plays: Shaw, *Major Barbara*; O'Casey, *Juno and Paycock*; O'Neil, *Long Day's Journey into Night*; Williams, *The Glass Menagerie*; Fry, *The Lady's Not For Burning*; Osborne, *Luther*; Pinter, *The Caretaker*; Albee, *Who's Afraid of Virginia Woolf?*; a play to be selected. Three of the following poets: Yeats, Frost, Eliot, Williams, Auden, Dylan Thomas, Stevens, a younger poet. Additional works may be selected.
(May not be combined with †ENG 100 in any degree programme.)
- ENG 112 Major British Writers**
Selections from: Chaucer, Spenser, Shakespeare's non-dramatic poetry, Donne, Milton, Pope, Johnson, Wordsworth or Keats, Browning or Tennyson, Yeats, or T. S. Eliot.
Reference: The Norton Anthology of English Literature, one volume ed. (revised). (Alternative or additional texts may be assigned by the instructor). At least three plays, including one by Shakespeare; Swift, *Gulliver's Travels*; one novel, *novella*, or group of short stories by each of: Fielding, Dickens or George Eliot, and Joyce or James. Additional works may be selected.
(May not be combined with †ENG 105 in any degree programme.)
- ENG 152 Canadian Literature in English**
Selections from *The Book of Canadian Prose* (ed. Smith); Moodie, *Roughing it in the Bush*; Leacock, *Sunshine Sketches*; MacLennan, *Each*

Man's Son; Callaghan, *More Joy In Heaven*. Four to six additional novels. Selected poetry and short fiction. Recommended reading: *Canadian Anthology* (ed. Klinck and Watters 2nd ed.); supplementary texts may be selected. (May not be combined with †ENG 454 in any degree programme.)

ENG 204 Medieval Literature to 1500

A study of some of the major works of medieval literature. Boethius, *Consolation of Philosophy*; Beowulf; Dante, *Inferno*; Sir Gawain and the Green Knight; selections from Chaucer. At least five of the following: *Chanson de Roland*; Chrétien de Troyes; Marie de France; Gottfried von Strassburg; *Roman de la Rose*; Njal's Saga; Pearl; Piers Plowman; Malory; Everyman. Other texts to be selected. Chaucer and later English works will be read in the original.

ENG 212 Shakespeare

A study of at least ten plays.
(May not be combined with †ENG 101 in any degree programme.)

ENG 218 Major American Authors

An introductory study of a number of American authors — no fewer than four and no more than six — chosen from different periods and so as to suggest something of the range of American Literature. At least four of the authors should be drawn from the following list: Hawthorne, Melville, Whitman, Mark Twain, James, Stevens, Eliot, Faulkner.
(May not be combined with †ENG 102 in any degree programme.)

ENG 220 Varieties of Prose Fiction

Reading lists to be provided through the College departments.
(May not be combined with †ENG 206 in any degree programme.)

ENG 230 Varieties of Drama

Approximately twenty plays to be chosen from the different historical periods and genres. Reading lists to be provided through College departments.
(May not be combined with †ENG 205 in any degree programme.)

**COURSES OPEN TO SECOND-
AND HIGHER-YEAR STUDENTS**

ENG 300 Advanced Studies in Beowulf and Other Old English Poetry

(May not be combined with †ENG 208 in any degree programme.)
Prerequisite: ENG 200 (or †ENG 103).

ENG 302 English Poetry and Prose, 1500-1600

(May not be combined with †ENG 211 in any degree programme.)
Prerequisite: At least ONE previous course in English.

ENG 304 English Poetry and Prose, 1600-1660

(May not be combined with †ENG 321 in any degree programme.)
Prerequisite: At least ONE previous course in English.

ENG 306 English Poetry, Prose, and Drama, 1660-1800

(May not be combined with †ENG 320 in any degree programme.)
Prerequisite: At least ONE previous course in English.

ENG 308 Romantic Poetry and Prose

(May not be combined with †ENG 435 in any degree programme.)
Prerequisite: At least ONE previous course in English.

ENG 312 Chaucer

(May not be combined with †ENG 210 in any degree programme.)
Prerequisite: At least ONE previous course in English.

ENG 315 Milton, Pope, Wordsworth, and Yeats

(May not be combined with †ENG 207 in any degree programme.)
Prerequisite: At least ONE previous course in English.

ENG 322 Fiction before 1832

(May not be combined with †ENG 212 in any degree programme.)
Prerequisite: At least ONE previous course in English.

ENG 324 Fiction 1832-1900

(May not be combined with †ENG 212 in any degree programme.)
Prerequisite: At least ONE previous course in English.

ENG 328 Modern Novel

(May not be combined with †ENG 440 in any degree programme.)
Prerequisite: At least ONE previous course in English.

ENG 332 English Drama to 1642

(May not be combined with †ENG 335 in any degree programme.)

Prerequisite: At least ONE previous course in English.

ENG 334F Restoration and Eighteenth-Century Drama

Prerequisite: At least ONE previous course in English.

ENG 338 Modern Drama

(May not be combined with †ENG 439 in any degree programme.)

Prerequisite: At least ONE previous course in English.

ENG 341 The Longer English Poem

(May not be combined with †ENG 203 in any degree programme.)

Prerequisite: At least ONE previous course in English.

ENG 346 Victorian Poetry

(May not be combined with †ENG 436 in any degree programme.)

Prerequisite: At least ONE previous course in English.

ENG 348 Modern Poetry

(May not be combined with †ENG 438 in any degree programme.)

Prerequisite: At least ONE previous course in English.

ENG 350 American Literature, 1607-1865

Prerequisite: At least ONE previous course in English.

ENG 352 American Literature, 1865—

Prerequisite: At least ONE previous course in English.

ENG 354 Canadian Poetry

(May not be combined with †ENG 454 in any degree programme.)

Prerequisite: At least ONE previous course in English.

ENG 356 Canadian Fiction

(May not be combined with †ENG 454 in any degree programme.)

Prerequisite: At least ONE previous course in English.

ENG 368 Victorian Prose

(May not be combined with †ENG 455 in any degree programme.)

Prerequisite: At least ONE previous course in English.

ENG 404 Middle English Language and Literature

(May not be combined with †ENG 420 in any degree programme.)

Prerequisite: Normally at least THREE previous courses in English, with B-standing or better in each of at least THREE.

ENG 413 Four Major Renaissance Authors

Prerequisite: Normally at least THREE previous courses in English, with B-standing or better in each of at least THREE.

ENG 415 Four Major Restoration and Eighteenth-Century Authors: Dryden, Pope, Swift, Johnson

Prerequisite: Normally at least THREE previous courses in English, with B-standing or better in each of at least THREE.

ENG 417 Four Major Nineteenth-Century Authors

Prerequisite: Normally at least THREE previous courses in English, with B-standing or better in each of at least THREE.

ENG 419 Four Major Twentieth-Century Authors

Prerequisite: Normally at least THREE previous courses in English, with B-standing or better in each of at least THREE.

FINE ART

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

FAR 100 Materials and Methods of Art History

A discussion of the theories and practice of art history, including not only theoretical approaches to art history as an academic discipline, but also the main bibliographical and photographic resources that specialists in the subject will be expected to use.

Co-requisite: FAR 101/102.

FAR 101 Ancient Art

A survey of the art of Greece and Rome. Emphasis is placed upon the importance of architecture and the arts as characteristic expressions of their age; this concept is illustrated by detailed study of the outstanding monuments.

FINE ART

FAR 102 **Medieval Art**

A selective survey of the art of the Christian world between 300 and 1400 A.D.

FAR 110 **Introduction to the Visual Arts**

The language of vision is explained and explored. Discussions of various principles and concepts of form and space are accompanied by a series of pertinent practical exercises designed to acquaint the student with the basic media through experience in the use of a wide variety of materials. Students will be required to show evidence of ability in studio work before admission to the course.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

FAR 200 **European Art from 1400 to 1750**

A selective survey of the concepts and problems involved in the transition from Late Medieval to Renaissance in Italy and Northern Europe, and of subsequent artistic and cultural developments with special emphasis on the seventeenth century.

FAR 201 **European Art from 1750 to the Present**

A survey of modern art from the beginnings of Neo-Classicism to World War II, in architecture, sculpture and painting.

FAR 420 **American and Canadian Painting**

A history of North American painting from ca. 1800 with special emphasis on the relationship to European traditions. The growth of distinctive national styles and criticism of this concept are to be examined.

Prerequisite: FAR 201 (or †FAR 300/320).

FRENCH

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

NOTE: The prerequisite for all these courses (except FRE 100) is Grade XIII FRE.

FRE 100 **French Tragic Literature**

A study of the tragic mode in selected novels and plays. Texts studied in the original French. Students may choose lectures and tutorials conducted either in French or in English.

N.B. This course may not be counted towards a specialist programme in French Language and Literature, nor in Languages and Literatures, nor in Modern Languages and Literatures.

Prerequisite: A reading knowledge of French as determined by a test.

FRE 120 **Introduction to University French Studies**

Language practice, including phonetics, grammar, composition, language laboratory work, with readings and discussions.

Prerequisite: XIII FRE.

FRE 140 **Studies in Modern French Literature**

The study of specific texts in 19th and 20th century poetry, novel and drama. A practical introduction to techniques of literary criticism and analysis.

Prerequisite: XIII FRE.

Co-requisite: FRE 120.

FRE 142 **Man and Society In Fiction**

Studies in the contemporary French and French-Canadian novel, providing an introduction to critical studies in fiction.

Prerequisite: XIII FRE.

Co-requisite: FRE 120.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

FRE 271 **Language Practice**

A continuation of FRE 120, including grammar, composition, oral, vocabulary, pattern drills, language laboratory work, and practical phonetics.

Prerequisite: FRE 120.

FRE 290 **Independent Study**

Individual study with a member of staff on a topic of common interest, including readings, discussions, papers. Students may if they wish arrange to study two topics, each of which will be considered as constituting one half of the course.

Prerequisite: FRE 120.

With permission of the Department.

FRE 300 **Realism and Idealism in French Literature**

A study of realistic and idealistic tendencies in selected examples of French fiction, theatre and poetry. Texts studied in the original French. Students may choose lectures and tutorials conducted either in French or in English.

N.B. This course may not be counted towards a specialist programme in French Language and Literature, nor in Languages and Literatures, nor in Modern Languages and Literatures.

Prerequisite: FRE 100/200/120.

FRE 320 **The Classical Current**

Specific texts studied, with emphasis on the main period associated with the current.

Prerequisite: FRE 120.

FRE 322 The Philosophical Current

Specific texts studied, with emphasis on the main period associated with the current. Not open to students who have taken the former FRE 320.

Prerequisite: FRE 120.

FRE 324 The Romantic Current

Specific texts studied, with emphasis on the main period associated with the current.

Prerequisite: FRE 120.

FRE 326 The Realistic Current

Specific texts studied, with emphasis on the main period associated with the current.

Prerequisite: FRE 120.

FRE 328 Symbolism and Surrealism

Specific texts studied, with emphasis on the main period of the movement.

Prerequisite: FRE 120.

FRE 330 The Literature of French Canada

Specific texts studied.

Prerequisite: FRE 120.

FRE 342 Studies in French Poetry

Introduction to French poetry. Specific texts studied.

Prerequisite: FRE 120.

FRE 352 Drama 1600-1800

The study of specific texts.

Prerequisite: FRE 120.

FRE 354 Drama 1800-1950

The study of specific texts.

Prerequisite: FRE 120.

FRE 362 Prose Fiction 1600-1800

The study of specific texts.

Prerequisite: FRE 120.

FRE 364 Prose Fiction 1800-1900

The study of specific texts.

Prerequisite: FRE 120.

FRE 366 Prose Fiction 1900-1950

The study of specific texts.

Prerequisite: FRE 120.

FRE 372 The Structure of Modern French

An introduction to French linguistics: the study of the phonological, morphological and syntactical systems of contemporary French.

(Not open to students who have taken †FRE 275/355).

Prerequisite: FRE 120.

FRE 374 Introduction to the Stylistics of French

The study of stylistic aspects of contemporary spoken and written French.

(Not open to students who have taken †FRE 452).

Prerequisite: FRE 120.

NOTE: Unless otherwise specified, the prerequisite for these courses in 1970-71 is any FRE course numbered from 220 upwards.

FRE 318 French Literature of the Sixteenth Century

The study of specific texts.

(Not open to students who have taken †FRE 325).

FRE 368 Contemporary French Literature

The study of the novel and theatre since circa 1950 with special reference to le nouveau roman and l'anti-théâtre.

FRE 371 Language Practice

A continuation of FRE 271, this course is designed to advance the student's competence in written and spoken French.

(Not open to students who have taken †FRE 340).

Prerequisite: FRE 271.

NOTE: Fourth-year students are reminded that many courses listed in the two preceding categories may be taken, providing course content does not duplicate previous or concurrent work.

FRE 420 The French Novel 1800-1950

The study of specific texts. To be offered in 1970-71 only, and open only to Fourth-year students.

Prerequisite: FRE 301/320.

GERMAN

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

GER 130 German Literature of the 19th and 20th Centuries (2 hrs); Language Practice (1 hr).

A study of works from 19th and 20th Century German Literature to illustrate major trends; practice in active language learning.

Prerequisite: XIII GER.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

GER 210 Language Practice

An intensive course in learning to write and speak German, for those students who are particularly interested in gaining an active command of the language.

[May not be combined with GER 231 (or †GER 241) in any degree programme].

Prerequisite: GER 120/130 (or †GER 121).

Co-requisite: GER 220/230.

GERMAN

GER 220 German Literature of the Enlightenment and Storm and Stress

A study of the works of the German Aufklärung, and of the young Goethe, the young Schiller, and their contemporaries.

Prerequisite: GER 120/130 (or †GER 121).

GER 230 Romanticism (2 hrs); Language Practice (1 hr)

A study of the Romantic period, including such figures as Novalis, Brentano, Kleist and Hoffmann. Language work of first year is continued.

Prerequisite: GER 120/130 (or †GER 121).

GER 320 The Age of Goethe

The study of the works of the mature Goethe and Schiller.

GER 321 Nineteenth Century Prose and Poetry

This course includes major works of such authors as Heine, Stifter, Storm, Fontane, Keller, Meyer and Raabe.

GER 322 Middle High German; Language and Literature

Prescribed texts, supplementary texts. (This course is mandatory for German Specialists).

GEOGRAPHY

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

GGR 100 Introductory Physical Geography

Term I: Geomorphology: Principles of landscape, sculpture, modern versus classical geomorphology, morphoclimatic controls, weathering, soil formation, the hydrologic cycle, rivers and drainage basins, floods, erosion, pollution; man's role in changing the landscape.

Term II: Climatology: Time and space scales of fluctuations in atmospheric variables; fluxes and balances of radiation, heat, moisture; relationship to other geographically differentiated phenomena.

GGR 101 Environment and Man

Man and his societies in relation to the geographical environment. His changing perception of that environment, and his systems of responses to it, primarily now and in the future. The climate-soil-biotic complex and its stability in the presence of economic exploitation. Prediction, control and management of environmental factors. Environmental decay and restoration.

GGR 101EF Introduction to Geomorphology

Gross morphology and clima-geomorphic regions of the earth. Rates of regional denudation in relation to climate, relief and rates of uplift. Qualitative introduction to the main types of erosional, transportational and depositional processes and their associated landforms. Weathering and mass movements. Fluvial processes. Glacial landforms. Marine landforms. Wind action. Introduction to some basic concepts of geomorphology such as relations of 'structure, process and stage', magnitude and frequency concept of erosion, and climate and landforms.

GGR 102ES Introduction to Climatology

Atmospheric variables in time and space, fluxes and balances of radiation, heat and moisture; climatic regions. Relations of plants and animals to climatic phenomena.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

GGR 203EF Introduction to Urban Geography I

The principles of urban geography, embracing discussions about the distribution, form and function of cities.

Prerequisite: Any two half courses in GGR.

GGR 204ES Introduction to Urban Geography II

A series of studies of specific problems in Urban Geography.

Prerequisite: GGR 203EF.

GGR 220 Regional Economic Analysis

An introduction to location, structure and interaction. The course focuses on: the use of location theory in explaining industrial and agricultural patterns; transport networks and flow systems; regional economic development. Examples are drawn from various parts of the world.

GGR 224 Introduction to Urban Geography

An introduction to the study of the city under these headings: origins of cities; description and measurement of the city; spatial structure of urban activities; intra-urban circulation; urban systems; urban growth; urban form and development in Europe and North America; the city as environment; contemporary approaches to urban problems.

GGR 240 Canada — A Geographical Interpretation

An examination of the development of economic regions in Canada. Emphasis will be put on questions of resource endowment, human migration and spatial interaction. Problems of present regional disparities will be discussed.

GGR 242 The Geography of Latin America

This course provides a survey of the settlement geography of Latin America, a discussion of the origin and distribution of the various types of land use in Latin America and a discussion, from the point of view of geography, of some of the major problems of present-day Latin America.

GGR 245 Africa

GGR 248 Historical Geography of Canada

A lecture and seminar course on the geography of Canada before confederation emphasizing the emergence of the regional pattern and the relationship between society and human landscape in early Canada. Much of the fall term is devoted to early Quebec, and approximately half of the spring term to early Ontario.

GGR 307EF Agricultural Geography I

Background discussions in agricultural origins, agricultural ecology, and the economic development of agriculture.

Prerequisite: Any four half courses in GGR.

GGR 308ES Agricultural Geography II

Special topics in agricultural geography and the examination of agricultural regions.

Prerequisite: GGR 307EF.

GGR 343 China

Prerequisite: 2 courses in Geography or consent of instructor.

GGR 344 The U.S.S.R.

Lectures are emphasized in the first term and seminars in the second term. Stress is placed on comparisons with North America. Topics include: the historical setting, the quality of the Soviet environment, the rural economy, the urbanization process, population migration and problems of regional development, industrial location and resource analysis.

Prerequisite: 2 courses in Geography or consent of instructor.

GEOLOGY

**COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS**

GLG 100 Introduction to Geology

An introduction to the geological processes at work throughout geological time; continental drift; earthquakes, volcanoes and the structure and composition of the earth's interior; determination of geological time; the past climates and geography of the earth.

(May not be combined with GLG 120 in any degree programme).

HISTORY

**COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS**

HIS 100 An Introduction to the Methods and Problems of Historical Study

An introduction to history as a discipline rather than to the history of any country or period. A selection of major historical events, and themes from both European and non-European societies. Students consider the interpretation of historical sources and texts, and the concepts which historians use to analyze change. Instruction consists of lectures and tutorials in one half the year and seminars in the other half.

**COURSES OPEN TO SECOND-
AND HIGHER-YEAR STUDENTS**

HIS 220 The Shape of Medieval Society

A topical survey of economic, political, religious and educational ideas and institutions of the Middle Ages. The narrative of political events is kept to a minimum, serving only to provide the necessary context for institutions and ideas. From the late Roman period to the fifteenth century.

HIS 230 England: Fifteenth to Seventeenth Century

England (with some attention to the rest of Britain) from the mid-15th through the 17th century, with stress on the "hinge" century from the Reformation to the Civil War. The approach is socio-economic and cultural as well as political.

HIS 231 Britain: Nineteenth and Twentieth Centuries

The major themes of British history from the late 18th century; the emergence of industrial society; the fate of aristocracy, religion, cultural and intellectual change; external relations, constitutional development and political history.

HIS 232 The British Imperial Experience

Among the themes to be emphasized are: the nature and exercise of power; the reasons for imperial expansion; the colonial system at work; racial antagonism and accommodation; the rise of nationalism in the non-European world.

HIS 240 Early Modern Europe, 1500-1815

A general survey of the political, social, and economic history of Europe from the period of the great discoveries through the Napoleonic era. Topics to be discussed include: the political and religious struggles of the 16th century; overseas expansion; the development of royal absolutism;

social change and the crisis of the ancient regime; the impact of the Enlightenment; the French Revolution and its effects.

HIS 241 The Age of European Hegemony, 1815-1945

Main themes in the history of Europe. Attention paid less to national histories than to European institutions, social classes and ideas, industrialization and urbanization, cultural development, international relations, imperialism, war and peace and the shifting position of Europe in the world balance.

HIS 250 Russia Since the Ninth Century

The Russian people, state and culture, with emphasis on major institutional social and ideological changes. First term: the origins of Russian history, paganism and Christianity, Mongol influences, the forging of Muscovite autocracy, westernization to 1800; Second term: the imperial regime, the radical intelligentsia, the Revolution and the establishment of the Soviet regime, the Stalin revolution in agriculture, industry and society, foreign relations. Reading in primary and secondary materials.

HIS 260 Pre-Confederation Canada

Studies in the major problems and themes of the history of Canada before Confederation.
[May not be combined with HIS 262 (or †HIS 300) in any degree programme.]

HIS 261 Post-Confederation Canada

Studies in the major problems and themes of the history of Canada after Confederation.
[May not be combined with HIS 262 (or †HIS 300) in any degree programme.]

HIS 262 History of Canada

A survey of the political, social and economic history of Canada, topically treated, from 1663 to 1967.
(May not be combined with HIS 260/261 or HIS 300 1969-70 in any degree programme.)

HIS 270 The Development of American Thought and Society from Colonial Times

Main trends in intellectual and social history, with attention given to such topics as Puritanism, the Enlightenment, the reform impulse, education and science, the American mind during and after the Civil War, immigration, from the Age of Innocence to the Age of Anxiety.
(May not be combined with HIS 271 in any degree programme.)

HIS 271 American History Since 1763

Major themes since the American Revolution, including independence and political reorganization, political parties, territorial expansion, the sectional crisis, industrialization, progressivism, the United States as a world power.
(May not be combined with HIS 270 in any degree programme.)

HIS 280 Selected Topics in Chinese and Japanese History

The lecture portion of the course is the same as that of EAS 102. The tutorial portion is different.
(May not be combined with EAS 102 in any degree programme.)

HIS 290 Latin America: Conquest to Revolution

Introduction to the economic, political and intellectual history of Latin America from roughly 1400-1960. Emphasis placed on: the contact of European and non-Western cultures, the development of institutions such as latifundia, the crisis of independent nationhood, the struggle for economic development, and the contemporary revolutionary crisis.

HIS 295 Introduction to the History of Africa

A survey of the history of sub-saharan Africa from earliest times through the end of colonial rule. Concentrates on the evolution of African societies and their responses to external forces.

HIS 301E Parties and Politics—Canada 1867-1967

A specialized field in Canadian history.
Pre-requisite: Permission of the instructor.

HIS 320 Science in Western Intellectual History

Development of scientific thought from the 17th century to 1925 relating the science to contemporary movements in philosophical and political theory. Prevailing scientific ideas in France, Britain, Germany, Holland and Italy, relating these to the social, economic and political theories. The organization of science, the dissemination of ideas through scientific societies and the universities, and the relations of science and religion.

HIS 325 Politics and Society in Medieval England

Freedom and authority in the context of social development (family, lordship, class structure, nobility, bourgeoisie, revolutionary movements) from the Anglo-Saxons to the Yorkists. Interplay of social and political forces stressed where appropriate. Translated documents are used to enable students to form their own opinions on contentious issues.

- HIS 346 The Revolutionary Idea in France**
Readings in commentators on political and cultural change in French society, emphasizing socialist, liberal, conservative, traditional and romantic thinkers and revolutionary historiography.
- HIS 370 The American Political Tradition**
Conflict and consensus in American political history from the Revolution to the present time. An attempt is made to analyze, and explain the persistence of the ideological and pragmatic strains in American politics. The course deals with American foreign relations as well as with domestic politics.
- HIS 372 The United States in the Twentieth Century, 1895-1970**
A survey and analysis of the political, economic and social institutions, and foreign policy commitments of the United States.
- HIS 438 Studies in Victorian Social History**
Selected topics in the history of 19th century English society.
Prerequisite: With permission of the Department.
- HIS 447 Studies in Nineteenth Century Intellectual History**
Major French, German and English intellectuals, 1815-1914. Focus on views about morality, work, love, political activism, political quietism, individualism, the social group, the state, placed in their historic and social context.
Prerequisite: With permission of the Department.

INTERDISCIPLINARY COURSES

Students who feel they have preparation equivalent to the stated prerequisites (or co-requisites) may apply to the appropriate course chairman for admission.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

- CIN 202 Canadian Culture and Society**
An introduction to aspects of Canadian culture and society, arranged for overseas students for whom English is a second language. The facilities of the Innis College Writing Laboratory will be made available for the preparation of written and oral reports.
- CIN 204 Modern Arts (The Cinema)**
A critical examination of the language, literature and techniques of cinema.

- CIN 300 Education and Society**
An analysis of critical problems and issues in education and the contributions of the major disciplines in their resolution. Current educational thought and practice will be emphasized, with particular reference to the Province of Ontario.
- CIN 400 Selected Topics in Education**
A seminar course dealing with the relationship of a particular discipline (Economics, History, Philosophy, etc.) to the study of education.
Prerequisite: CIN 300 (or EDN 300)
- FSE 200 Environmental Studies**
An interdisciplinary approach to issues arising from the interaction of living organisms, especially man, with their environment. Major theories, methods, and empirical findings of the relevant social and life sciences will be presented in the context of current environmental problems, such as pollution or food production. This course will serve as an introduction to later courses involving detailed examination of specific problems. Disciplines involved will include Biology, Geography, Law and Political Economy.
- FSM 200 Modernization and Community**
This sequence is an interdisciplinary approach to two central aspects of modern society; disruptive social changes and their relationship to the cohesion of communities. The central theme of the lectures will be how various forces such as urbanization, industrialization, the rise of modern bureaucracies, and increases in the scale of society transformed the traditional community. Weekly tutorials will discuss problems arising from the lectures and assigned readings. Contributing disciplines will include History, Sociology, Geography, Economics, Political Science. The course will serve as an introduction to later courses involving detailed study of topics.
- FSM 300 Modernization and Community: Seminar Workshops**
Introduced this year as the second level in the FSM sequence, the seminars are small-group meetings to consider some of the issues raised in FSM 200. The seminars will take up specific questions on the relationship between social change and the quality of community life, for example urbanization and urban problems, or the role of violence in the modern world. Substantial independent research will be required of the students. Each of the seminars will be supervised jointly by at least two staff members. The seminars meet once weekly for two hours.
Prerequisite: FSM 200 or equivalent.

INTERDISCIPLINARY COURSES

FST 200 Theory, Method and Practice

This course is the first of three concerned with knowledge as it is developed and applied in different fields of human inquiry. Focus will be on comparison of conceptual structures and methodology fundamental to the social and natural sciences. Topics include formal systems, explanation, induction and value judgments.

Prerequisite: One course in a natural science and/or social science. (PHL 100/150 is recommended.)

FST 300 Theory, Method and Practice

We focus on such topics as the valuational and methodological viewpoints related to the identification of, and attempted solution to, practical human problems, and the possibility of developing a unified strategy for their solution. We question whether or not there are unique methods of reasoning and technical vocabularies which affect such a strategy.

Prerequisite: Permission of the instructor.

ISLAMIC STUDIES

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

ISL 213 An Introduction to Islamic Civilization

This course is designed to explain the essential beliefs and practices of Islam, and the development of its intellectual and mystical traditions. Emphasis is given to the Islamic contribution to world civilization in the past, and its continuing impact today.

ISL 214 Introductory Standard Arabic

The study of the Arabic language is fundamental to work in Islamic Studies. In this course the student is introduced to the structure of Standard Arabic, neither obviously "classical" nor markedly "modern" in character.

ITALIAN AND HISPANIC STUDIES

ITALIAN

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

ITA 100 Italian Language for Beginners

In this course the student is introduced to the main elements of Italian grammar. The study of modern Italian authors is begun in the second term, with emphasis on language and literary analysis. Oral practice in the classroom and laboratory training are stressed throughout the year. (May not be combined with ITA 120F/121S in any degree programme.)

ITA 120F Language Practice

This course, conducted entirely in Italian, will be for students with Grade XIII Italian or equivalent. It will consist of a review of grammar and the writing of short compositions.

(May not be combined with ITA 100 in any degree programme.)

Prerequisite: XIII ITA or equivalent.

ITA 121S Italian Twentieth Century Literature

A course which introduces those with Grade XIII standing or equivalent in Italian to modern Italian literature. Short novels and plays will be analysed for an artistic appreciation and discussed for an understanding of social and intellectual problems of present-day Italy.

(May not be combined with ITA 100 in any degree programme.)

Prerequisite: XIII ITA or equivalent.

Co-requisite: ITA 120F/190Y.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

ITA 220Y Intermediate Italian

Discussion and drills on Italian grammar. Exercises in writing brief essays in Italian. The course is conducted primarily in Italian.

(May not be combined with ITA 221Y in any degree programme.)

Prerequisite: ITA 100.

ITA 221Y Expository Writing in Italian

Discussion of problems connected with vocabulary and syntax. Analysis of examples of modern expository prose. Exercises in essay writing. The course is conducted in Italian.

(May not be combined with ITA 220Y in any degree programme.)

Prerequisite: ITA 120F/190Y (or †ITA 120).

ITA 222S Nineteenth and Twentieth Century Novel

Manzoni's development of the historical novel as a vehicle for his vision of life. Verismo and Verga's new technique to express the social and political problems facing United Italy. The novel after the Second World War. Political consciousness in a fragmented world. The anti-hero and the importance of the myth.

Prerequisite: ITA 100/120F/190Y (or †ITA 120).

Co-requisite: ITA 220Y/221Y/290Y.

ITA 223F Nineteenth and Twentieth Century Theatre

The development of realism in the Italian theatre. Depiction of the middle class and its problems. The changing social and economic scene in a united Italy. New techniques in the theatre and

their use by Pirandello. Themes of justice and guilt in post-World War II drama.
Prerequisite: ITA 100/120F/190Y (or †ITA 120).
Co-requisite: ITA 220Y/221Y/290Y.

ITA 223Y Nineteenth and Twentieth Century Theatre
The same as ITA 223F.

ITA 224Y Nineteenth and Twentieth Century Poetry
Introduction to the main currents of nineteenth and twentieth century Italian poetry against the social and literary background from the time of the Risorgimento to the present day. Reading of representative poems of the nineteenth century from Leopardi and Pascoli, and of the twentieth century from Ungaretti, Montale and Quasimodo.
Prerequisite: ITA 100/120F/190Y (or †ITA 120).
Co-requisite: ITA 220Y/221Y/290Y.

ITA 321 Literature of the Middle Ages
A study of Dante's *Divina Commedia* (*Inferno* and *Purgatorio*), Petrarca's *Canzoniere* and Boccaccio's *Decamerone*, against the background of the culture and society of the Middle Ages and the significant literary developments of the time.
Prerequisite: ITA 220Y/221Y/290Y (or †ITA 222).

PORTUGUESE

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

PRT 200 Introductory Course in Portuguese
Intensive audio-lingual drill. Special emphasis on comprehension and oral practice. Instruction both in the classroom and the language laboratory. Reading of selected modern works.

SPANISH

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

SPA 100 Spanish Language for Beginners
A basic introductory course which provides instruction in the spoken and written language. In addition to the classes in small groups, supervised instruction in the language laboratory affords the student an opportunity for intensive oral practice. The second term includes a study of leading contemporary authors of the Spanish-speaking world.
(May not be combined with SPA 120 in any degree programme.)

SPA 120 Modern Spanish Literature; Language Practice
A course for those with Grade XIII standing or equivalent in the subject. Some modern Spanish

prose and poetic works are studied for their literary value and in relation to social and intellectual problems. Intensive written and oral practice is stressed both in the literature and the language hours.

(May not be combined with SPA 100 in any degree programme.)

Prerequisite: XIII SPA.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

SPA 220Y Composition and Oral Practice I

This course is designed to give the student intensive practice in the language, both written and oral, to enable him to gain ease and fluency in both skills. The division into small groups will allow the instructor to give individual attention.

Prerequisite: SPA 100.

SPA 236Y Modern Spanish Poetry

A study of some major poets of the nineteenth and twentieth centuries showing successive changes in poetic style and in the treatment of reality from Romanticism to Surrealism. The lecture period in English/Spanish will be supplemented by seminar discussion of poems in Spanish for additional oral practice.

Prerequisite: SPA 100/120.

Co-requisite: SPA 220Y/221Y.

SPA 246F Modern Spanish Drama from 1830-1930

The Romantic revolt against Neo-Classicism; the Realistic theatre's presentation of moral and social questions; later trends toward discussion of philosophical and psychological problems.

Prerequisite: SPA 100/120.

Co-requisite: SPA 220Y/221Y.

SPA 246Y Modern Spanish Drama from 1830-1930

Same as SPA 246F.

SPA 256S Spanish Novel from 1874-1936

The modern Spanish Novel from Realism to Existentialism is examined as a varied and challenging statement of man's quest for self-discovery. A critical analysis of the novel will be stressed in the lectures and discussed in the tutorial groups.

Prerequisite: SPA 100/120.

Co-requisite: SPA 220Y/221Y.

SPA 320Y Composition and Oral Practice III

This course provides, in small groups, intensive practice in written and oral Spanish.

Prerequisite: SPA 220Y/221Y.

SPA 343Y Golden Age Drama

A study of the development of Spanish drama in the sixteenth and seventeenth centuries, with the careful reading of ten representative plays. Stress is laid on the stage presentations both in the popular theatres and in the court theatres. One essay, on an assigned topic, is required.

Prerequisite: SPA 220Y/221Y.

Co-requisite: SPA 320Y/420Y.

SPA 353S Golden Age Prose

A study is made of the different varieties of prose fiction (e.g. chivalresque, pastoral, picaresque) cultivated in the Golden Age, with special reference to representative examples. Major attention is paid to *Don Quixote*.

Prerequisite: SPA 220Y/221Y.

Co-requisite: SPA 320Y/420Y.

SPA 366F Spanish American Modernista Verse

A study of the *modernista* current as reflected in the works of its most significant exponents.

Prerequisite: SPA 220Y/221Y.

Co-requisite: SPA 320/420Y.

LINGUISTICS

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

JAL 100 Introduction to General Linguistics

References: An Introduction to Descriptive Linguistics and Workbook. Lectures on fundamental principles with illustrations from English and from a broad spectrum of other languages. Tutorials for practice in production and recognition of speech sounds, and elementary analytic techniques.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

LIN 201 Language Learning

An investigation of the learning of first and second languages in monolingual and polylingual societies. Illustrated by 16 to 20 hours of the learning of some exotic spoken language such as Chinese or Japanese.

(May not be combined with †LIN 221 in any degree programme.)

JAL 300 Language and Society

The use of language from social perspectives: Dialects and standard languages; speech styles; argots, substandard and other varieties; language planning and schooling; the politics of language. (May not be combined with †LIN 302 in any degree programme.)

Prerequisite: JAL 100/LIN 201 (or †LIN 100/221).

LIN 333 Structure of English

The syntactic and morphological systems of English and an examination of some of the commonly used presentations of English grammar.

Prerequisite: JAL 100 (or †LIN 100) or permission of the Department.

MATHEMATICS

All courses offered by the Department are open to all students having appropriate prerequisites and co-requisites.

A student who wishes to take a course in Mathematics for which he lacks the prescribed prerequisite may be permitted to do so if, in the opinion of the Department, he demonstrates adequate preparation for the course. He must apply to the Undergraduate Secretary of the Department for such waiver of prerequisite and is strongly advised to do so, preferably in person, as early as possible. At that time suitable study material will be suggested. An examination may be required before the beginning of term.

NOTE: No TWO of MAT 110, 130, 134, 135, 139, 150 may be combined in any degree programme. Other undesirable combinations are noted below. In addition to the individual listings, no TWO of the following can be combined in any degree programme: GGR 270, GLG 221Y, STA 232, STA 242, STA 252, ECO 220, POL 206, (PSY 200F †PSY 201S), SOC 201.

ACTUARIAL SCIENCE

ACT 223F Mathematics of Investment and Credit

Interest, discount, and present values, as applied to determine prices and values of mortgages, bonds, shares of stock; loan repayment schedules and consumer finance payments in general; yield rates on investments given the costs of the investments and the cash returns; effective costs of credit arrangements.

Prerequisite: A first-year calculus course.

ACT 233S Introductory Life Contingencies

Probability theory applied to problems involving life and death of one or more lives; costs of life assurances, life annuities, pensions; determination of balance sheet reserves; standard international notation.

Prerequisite: ACT 223F.

Co-requisite: STA 232/242/252.

APPLIED MATHEMATICS

APM 236F Numerical Methods

Solution of non-linear equations, approximation, quadrature, solution of systems of linear equations, eigenvalues and eigenvectors, differential

equations. Exercises requiring use of a computer will be assigned.

[May not be combined with APM 361F (or †APM 231/361) in any degree programme].

Prerequisite: CSC 108F/108Y/148F/148Y and MAT 134/135/139/150.

Note: CSC 108F/108Y and MAT 110/130 accepted as prerequisite with MAT 225 as co-requisite.

APM 236Y **Numerical Methods**

Same as APM 236F.

APM 331F **Applied Differential Equations**

A study of ordinary and partial differential equations in a physical context.

(May not be combined with MAT 244F or APM 251 in any degree programme.)

Prerequisite: MAT 230/234/235/239/250.

APM 336Y **Mathematics in the Social Sciences**

Illustrative mathematical models in the social sciences, involving concepts of order, calculus, matrix algebra, probability and optimization.

Reference: Kemeny & Snell, *Mathematical Models in the Social Sciences*.

Prerequisite: Any two MAT courses.

COMPUTER SCIENCE

CSC 108F **Computer Programming**

Algorithms and flow charts. An introduction to stored-program computers and programming in a higher level language, such as Fortran or PL/1. Elementary Applications.

[May not be combined with CSC 108Y/148F/-148Y (or †CSC 238F) in any degree programme].

CSC 118S **The Computer and Society**

The impact of automation on society, with special emphasis on the role of the computer, what the computer can do, its business and scientific applications and its effect on society in general. Special attention will be paid to the problems and dangers encountered by society in the computer age.

(May not be combined with CSC 158S in any degree programme.)

Prerequisite: CSC 108F/108Y/148F/148Y (or †CSC 238F).

CSC 148F **Introduction to Computing**

Algorithms, flow charts, stored-program computers and algebraic programming languages. Programming in a higher level language such as Fortran or PL/1, and applications to numerical calcula-

tions, simulations, statistics, data processing, and non-numerical problems.

[May not be combined with CSC 108F/108Y/148Y (or †CSC 238F) in any degree programme].

Prerequisite: XIII MAT A.

Co-requisite: MAT 134/135/139/150.

NOTE: The co-requisite will be waived in 1970-71 for students with XIII MAT B and MAT 130 as prerequisites.

CSC 148Y **Introduction to Computing**

Same as CSC 148F.

CSC 158S **Computers and Society**

A study of computer applications and their implications for society. Simulation and the validity of computer models in social and economic contexts; data banks and privacy; legal problems associated with the management of large files; the potential and limitations of artificial intelligence. (May not be combined with CSC 118S in any degree programme.)

Prerequisite: CSC 148F/148Y (or †CSC 238F).

CSC 228S **Programming Techniques for Data Processing**

Cobol, modular programming, decision tables, If—applicable programming, tabling, table oriented logic, debugging, sorting, hardware and software evaluation.

Prerequisite: CSC 108F/108Y/148F/148Y (or †CSC 238F) and one MAT course other than MAT 100.

CSC 248Y **Programming Languages and Applications**

The syntax and semantics of various programming languages, including both algebraic and symbol manipulation languages. Data structures. Numerical and non-numerical applications.

Prerequisite: CSC 148F/148Y (or †CSC 238F).

MATHEMATICS

MAT 100 **Introduction to Mathematics**

The nature and role of mathematics, illustrated primarily by the development of numerical and geometric ideas. Lectures, films, study of mathematical literature, and the writing of an essay. Tutorials will provide opportunity for doing mathematics as well as talking about it.

MAT 110 **Calculus A**

The derivative and integral with applications. (This course is MAT 130 adapted for students with no Grade XIII Mathematics.)

MATHEMATICS

MAT 130 Calculus

The derivative and integral, with applications. This is a course for those who need calculus to accompany another field of study but do not have a special interest in it; however, it is also suitable as a basis for further work.

(See also MAT 110.)

Prerequisite: XIII MAT A.

MAT 225 Linear Algebra

Vector spaces, linear transformations, matrices and determinants, quadratic forms and their geometrical interpretation, introduction to groups, rings and fields.

(May not be combined with MAT 140 in any degree programme.)

Prerequisite: XIII MAT A or MAT 110.

MAT 230 Advanced Calculus

A continuation of MAT 130. The definite integral, expansion in series, partial differentiation, multiple integration, differential equations.

(May not be combined with MAT 234/235/239/250 in any degree programme.)

Prerequisite: MAT 110/130/134/135/139/150.

MAT 300 Algebra

Number systems, groups, rings, fields, vector spaces and perhaps some applications.

(May not be combined with MAT 340/345 in any degree programme.)

Prerequisite: One previous MAT course.

MAT 319S Introduction to Complex Analysis

Cauchy's theorem, residue calculus, conformal mappings, an introduction to Fourier series.

Reference: Churchill, An Introduction to Complex Variables.

[May not be combined with MAT 330/339 (or MAT 355) in any degree programme.]

Prerequisite: MAT 230/234/235/239/250.

MAT 325 Geometry

Introduction to Euclidean geometry, with emphasis on the axiomatic method, modification of the axioms to yield projective, affine and non-Euclidean forms of geometry.

Reference: H. S. M. Coxeter, Introduction to Geometry.

(May not be combined with MAT 245S in any degree programme.)

Prerequisite: MAT 225/140.

STATISTICS

STA 232 Introduction to Statistics

Elements of probability theory, common distributions, point and interval estimation, standard significance tests, introduction to least squares and analysis of variance.

Prerequisite: MAT 110/130/134/135/139/150.

MUSIC

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

MUS 100 The Study of Music Literature

An introduction to world music dealing with the repertory of western music from the Middle Ages to the 20th century, non-western music of high civilizations, and popular music. Discussion of form, style and the inter-relationship of music and culture. Required listening and reading lists are distributed at the beginning of the year.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

MUS 222 Music of the 17th and 18th Centuries

A seminar course which will examine in depth selected topics from the 17th and 18th centuries; also research methods and music bibliography: music editions, sources and reference works.

References: selected scores and Duckles, Music Reference and Research Materials, 2nd Edition (Free Press).

Prerequisite: MUS 100, 120.

Co-requisite: MUS 240.

MUS 223 Music in the Contemporary World

The modern repertoire, including electronic, non-Western, and popular music developments. A non-specialist view of recent historical, theoretical, technological, and social advances in music.

Prerequisite: MUS 100.

NEAR EASTERN STUDIES

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

NES 100 The Ancient Near East

A general introduction to the archaeology, history, and literatures of the ancient Near East. Stress will be laid on the contributions made by the Egyptians, Babylonians, Assyrians and Hebrews to the development of civilization.

(May not be combined with NES 271/272 in any one year.)

NES 141 Introductory Classical Hebrew

An introduction to biblical Hebrew prose. Grammar and selected texts.
(May not be combined with NES 142 in any one year.)

NES 142 Introductory Modern Hebrew

Use of an audio-lingual approach: classroom exercises supplemented by drill in the language laboratory. Section 1: Students with no previous acquaintance with Hebrew. Sections 2 & 3: Students with rudimentary knowledge of Hebrew.
(May not be combined with NES 141 in any one year.)

**COURSES OPEN TO SECOND-
AND HIGHER-YEAR STUDENTS**

NES 241 Intermediate Classical Hebrew

A continuation of NES 141. Rapid reading of selected biblical texts.
Prerequisite: NES 141/152 (or †NLA 141/151).

NES 242 Intermediate Modern Hebrew

Intensive reading in post-biblical and modern Hebrew texts, including fiction, essays, and newspapers. Conducted in Hebrew.
Prerequisite: NES 142 (or †NLA 151).

NES 271 Ancient Egypt

The political and cultural history of Egypt from the close of the predynastic period to the conquest of Alexander the Great. Attention will be given to the archaeological and literary evidence. (NES 271 and 272 will be offered in alternate years, NES 271 in 1970-71, and not in 1971-72.)
(May not be combined with NES 100 in the same year.)

PHILOSOPHY

NOTE: Two Philosophy curricula are offered: ONE by St. Michael's College and ONE by the University Department which includes the College Departments of University College (including New and Innis Colleges), Victoria College and Trinity College. A student may, in consultation with the Academic Secretaries of the St. Michael's College Department and the other Departments involved, choose courses from both curricula.

University Department Courses

NOTE: All PHL courses in this group are open to students in any year provided they meet the stated prerequisites and co-requisites.

PHL 100 Introduction to Philosophy

An introduction to logic and to some of the main problems of Philosophy.

PHL 200F Problems of Ethics

An introduction to some main problems in moral philosophy.

PHL 200S Problems of Ethics

The same as PHL 200F.

PHL 201F History of Ethics

An historical introduction to the study of Ethics.

PHL 201S History of Ethics

The same as PHL 201F.

PHL 202F Problems of Political Philosophy

Introduction to some of the main problems in Political Philosophy.

PHL 202S Problems of Political Philosophy

The same as PHL 202F.

PHL 203F History of Political Philosophy

An historical introduction to the study of Political Philosophy.

PHL 203S History of Political Philosophy

The same as PHL 203F.

PHL 204S Contemporary Social Issues

A philosophical study of some current problems of contemporary society.

PHL 205F Philosophy of Religion**PHL 206F Modern Symbolic Logic****PHL 206S Modern Symbolic Logic**

The same as PHL 206F.

PHL 207S Inductive Logic**PHL 208S Aesthetics**

Types of aesthetic theory and problems in the philosophy of art.

PHL 209F Introduction to the Philosophy of Music

Types of aesthetic theory with special emphasis on problems in the Philosophy of Music.

PHL 210S Philosophy in Literature**PHL 211F Plato and his Predecessors**

An introduction to early Greek Philosophy from the pre-Socratics to Plato.

PHL 212S Aristotle and Later Greek Philosophy

An introduction to Aristotle and later Greek philosophy.

PHL 213F A History of Early Modern Philosophy I: Seventeenth Century Philosophical Thought

A historical survey of 17th century philosophical thought including both minor and major intellectual figures, from the Renaissance to the Enlightenment.

PHL 214S A History of Early Modern Philosophy II: Eighteenth Century Philosophical Thought

A historical survey of 18th century philosophical thought including both minor and major intellectual figures, from the Enlightenment to the age of Reason.

PHL 321S Contemporary Ethics

An investigation of current trends and problems in the fields of moral philosophy and metaethical theory.

Prerequisite: PHL 200F/S or 201F/S.

PHL 331S Minds and Machines

A study of formal and cybernetic models of the mind and their significance for traditional problems in the philosophy of mind.

Prerequisite: PHL 206F/S.

PHILOSOPHY (ST. MICHAEL'S COLLEGE)

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

PHL 150 Introduction to Philosophical Problems

Students in philosophical conversation with staff on such issues as: the nature of philosophy, its differences from and relation to other disciplines; man: life, consciousness and personality; knowledge and belief, experience, correct reasoning and explanation; human values: norms, freedom, responsibility, law and society; the ultimately real, existence, mind, God, immortality.

PHL 151 Classical Philosophy

An introductory course in the history of ancient Greek philosophy, with emphasis on Plato and Aristotle, and including some of the following: the Presocratics — Heraclitus and Parmenides — Socrates, and later developments: in Stoicism, Skepticism, Epicureanism, and Neoplatonism. Reading of primary sources on key problems to be stressed.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

PHL 250 Ethics

The attempt to settle disagreements about the most general standards of right and wrong; whether disagreements in morals can be resolved by reasoning; whether morality is exclusively subjective or the result of social conditioning; whether any moral code is binding.

PHL 253 Social and Political Philosophy

A study of the heads under which we make value judgments about social and political arrangements: society and the state, justice, rights, equality, freedom, property, sovereignty, democracy, toleration, etc. Also current ideologies, or influential thinkers of the past, the selection to vary from year to year.

PHL 262 Modern Philosophy to Kant

Knowledge of this period is important for understanding contemporary epistemology and metaphysics. The course will include some of the following: Descartes, Hobbes, Spinoza, Locke, Leibniz, Berkeley, Hume and Kant, on such topics as: God's existence, freewill, mind and body, the problem of evil, limits of human knowledge, reality of the external world, causality.

Recommended background: One prior or concurrent course in Philosophy.

PHL 263 English Philosophy from Hobbes to Mill

An introduction, for students interested in English literature and history, to the important discussions of ethics and political philosophy in England between the Civil War and the extension of the franchise to the working class. It will touch on Hobbes, Locke, Butler, Price, Hutcheson, Hume, Bentham, James Mill, and J. S. Mill.

PHL 355 Metaphysics

A philosophical study of reality, considered in its most basic aspect: its being or existence. Works of outstanding metaphysicians will ground discussion on such topics as: the nature, possibility, and language of metaphysics; being and beings; essence and existence; substance, causality, space and time; the supersensible, God, the Absolute, spirit, immortality.

Prerequisite or Co-requisite: One other course in Philosophy.

PHYSICS

NOTE: The text listed at the end of a course description will not necessarily be the one used for the course. It will, however, give an indication of the level at which the course is to be presented.

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

PHY 100 **Physics and the Modern World**

A course intended to give the non-science student an appreciation of the nature of the 20th century physics. The material is almost entirely descriptive. It is chosen to introduce the student to problems of interest to today's physicists and to show the interaction between physics and the community.

Reference: Huggins, Physics I.

PHY 130 **Mechanics, Matter and Waves**

An introductory lecture course in classical and relativistic mechanics, wave motion and properties of matter. A loosely structured laboratory which encourages individuality accompanies the lecture course. It is intended for science students who expect to take at least one additional physics course in a later year.

Reference: Sears and Zemansky, University Physics, Part I.

[May not be combined with PHY 120/140 (or +PHL 135) in any degree programme].

Prerequisite: XIII MAT A.

Co-requisite: MAT 130/135/139/150.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

PHY 222Y **Thermal Physics**

A core physics course. Characteristic features of macroscopic systems, basic probability notions, the postulates of the statistical theory, entropy, absolute temperature, the canonical distribution and the laws of thermodynamics are discussed.

Reference: Reif, Statistical Physics, Berkeley Physics Course, Vol. V.

Prerequisite: MAT 130/135/139/150.

PHY 230 **Electromagnetism and Modern Physics**

A lecture and laboratory course in electricity, magnetism, optics, atomic, nuclear and elementary particle physics, designed as a complement to Physics 130 and intended for specialists in disciplines other than physics.

References: Weidner and Sells, Elementary Classical Physics, Vol. II and Introduction to Modern Physics.

[May not be combined with PHY 220 or 221F or

227Y (or +PHY 270Y) in any degree programme].
Prerequisite: PHY 120/130/140 (or +PHY 135),
MAT 130/135/139/150.

PHY 301 **Atomic and Nuclear Physics**

Introduction to wave mechanics and the Schrodinger equation. Its application to the hydrogen atom. Electron spin, Zeeman effect. Description of two electron atom. Angular momentum and L—S coupling. Many electron atoms, and the periodic table. Molecules and bonding. The H_2^+ and 2_2 systems. The atomic nucleus, radioactivity, nuclear reactions. A less specialized version of PHY 300.

Reference: Beiser, Perspectives of Modern Physics.

(May not be combined with PHY 300 in any degree programme.)

Prerequisites: PHY 120/130 and MAT 135/139/150 and

Pre- or Co-requisites: PHY 230 and MAT 230/-235/239.

PHY 303Y **Thermodynamics**

The general principles of classical thermodynamics are discussed. Some representative applications are considered. Fluctuations and irreversible thermodynamics are treated. A core course for all specialist programs involving physics except those containing a thermodynamics course offered by the Chemistry Department.

Reference: Callen, Thermodynamics.

Prerequisite: MAT 230/235/239.

POLITICAL ECONOMY

COMMERCE

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

COM 100 **Financial Accounting**

Basic theory and concepts which underlie the preparation of financial statements; development of double entry theory and practice; the accounting cycle from the recording of transactions in double entry form to the year-end entries and the preparation of financial statements; problems of measuring income.

COM 101 **Industry and Trade**

A general introduction to the world of commerce, finance, industry and trade is the objective in this course. There are examination and analysis of our basic economic structure and institutions. Attention is drawn to current developments, and students are encouraged to establish their own special areas of interest.

**COURSES OPEN TO SECOND-
AND HIGHER-YEAR STUDENTS**

COM 220 Management Accounting

A comparison and evaluation of shareholder accounting and management accounting. Emphasis is placed on examination in depth of controller-ship techniques—profit planning, standard costs, flexible budgets, cost-volume-profit relationships, direct costing, relevant costing and capital budgeting. A survey of selected management science techniques is also included. Through case discussions, the interrelationships between information and control systems, managerial style and human behaviour are established.

Prerequisite: COM 100 (or †COM 102).

NOTE: The following courses are also open to Second Year students at the discretion of the instructor if space is available and pre- and co-requisites are satisfied.

COM 300 The Legal Environment of Business

The course has two main purposes: to develop an approach to reaching decisions objectively, and to examine how the law, as an institution, accommodates business convenience and social policy. In addition, the course examines the nature of legal devices that are commonly encountered in the operation of a business. To a large degree the lecture periods take the form of class discussion of cases and of topical matters related to business law. In the event that space is inadequate, priority will be given to Third Year students in Commerce & Finance. The course is also open to Second Year students at the discretion of the instructor if space is available and pre- and co-requisites are satisfied.

Prerequisite: ECO 100/102 & COM 101.

Co-requisite: COM 220.

COM 320 Problems in Accounting

An extension of prior accounting courses, emphasizing problem areas in financial accounting such as: allocation of income taxes; statements from incomplete records; inventory pricing; accounting for fixed assets including revaluations; purchase of going concerns including valuation of goodwill; accounting for investments, share capital and surplus items, stock rights and options; corporate reorganizations and consolidations; partnership problems.

Prerequisite: COM 220.

NOTE: The following courses are only open to Third Year students at the discretion of the instructor and if space is available and pre- and co-requisites are satisfied.

COM 400 Marketing

The major purpose of this course is to expose the student to current research being carried out in Marketing. While all topic areas mentioned in the outline will be discussed, the area of consumer behaviour is of primary interest. The course takes the form of lectures for the first term; in the second term students will be expected to give class presentations on selected topics, followed by class discussion.

Prerequisite: COM 220 & ECO 202.

Co-requisite: ECO 202 on petition.

COM 401 Principles of Administration

Examination of the essential processes of management or administration is the purpose of this course. These processes include organization, planning, leadership, and control; each of them is an integral part of the direction of every enterprise. There is study of current administrative practices and problems. Students are encouraged to identify and explore their own special areas of interest.

Prerequisite: COM 220 & ECO 202.

Co-requisite: ECO 202 on petition.

COM 423 Canadian Business Taxation

The course is basically designed to provide Commerce & Finance Students with an introduction to both the technical provisions and broad policy issues involved in taxation of business enterprises in Canada. The emphasis in the course is therefore of a dual nature, including both a development of an understanding of technical income tax provisions and a review of major policy issues.

Prerequisite: COM 220 & ECO 202.

ECONOMICS

**COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS**

ECO 100 Introduction to Economics

An introductory analysis of contemporary economic institutions and problems: the theory of production and employment; the role of money and the banking system; government monetary and fiscal policy; price determination and the role of competition; foreign exchange rates and international trade and finance; and comparative economic systems.

(May not be combined with ECO 102 in any degree programme.)

ECO 101 European Economic History

The making of the modern European economy from the Middle Ages to the 20th century, including discussion of demography, agriculture,

industry, technology, commerce, labour, money and banking, and their interconnection.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

NOTE: The following courses are also open to First Year students at the discretion of the instructor if space is available and pre- and co-requisites are satisfied.

ECO 200 **Microeconomic Theory**

A course in the microeconomic theory of pricing. It deals with the determination of prices through the interaction of the basic economic units, the household as consumer and the business firm as producer. Its concern is with the role of the pricing system as the mechanism by which social and individual decisions are made in a capitalist economy.

(May not be combined with ECO 241 in any degree programme.)

Prerequisite: ECO 100.

ECO 202 **Macroeconomic Theory, Money, Banking and National Income**

The subject matter of ECO 202 may be subdivided into the following major divisions; macroeconomics, monetary economics, economic stabilization, capital markets and international monetary economics. There is detailed discussion of the theory of output, employment and the price level; of techniques for achieving economic stability; of central banking and Canadian financial institutions and markets; and of foreign exchange markets.

(May not be combined with ECO 204F/205S/250F in any degree programme.)

Prerequisite: ECO 100/200.

ECO 204F **Macroeconomic Theory**

This course concentrates on the theory of national income in closed and open economies. The course emphasizes the logical structure of macroeconomic models and develops the theory of determination of output prices and interest rates. (May not be combined with ECO 202/240F in any degree programme.)

Prerequisite: None. (ECO 100 is strongly recommended as preparation.)

ECO 205S **Macroeconomic Policy**

This course is a continuation of ECO 204F. It turns to the problems of public policy in seeking to influence or control the level of national income and the price level.

(May not be combined with ECO 202/240F in any degree programme.)

Prerequisite: ECO 204F.

ECO 221 **North American Economic History**

This course deals with economic growth and institutional change in the U.S. and Canada to 1935. The emphasis is upon the application of microeconomic and monetary theory towards an explanation of historical change. A staples approach is taken to the study of Canadian economic history. The cod fisheries and the fur trade are examined for the early period in relation to the economic and political events to which they gave rise. The National Policy is then examined in regard to the creation of a transcontinental economy after Confederation.

Prerequisite: ECO 100.

ECO 328 **International Economics**

The purpose of the course is to acquaint students with the operation of the international economy and the economic interdependence among nations, both in terms of international monetary relationships and inter-actions and in terms of trade in real commodities. The course deals with these problems on theoretical, institutional, and descriptive levels.

Prerequisite: ECO 200 and ECO 202 (or equivalent).

ECO 339F **Labour Economics**

The course is intended primarily to introduce students to some of the more important issues in the study of labour economics, and to provide a descriptive background for students who will be pursuing further study in this field. The course deals only with selected topics and with the major aspects of these topics. Students therefore are expected to do considerable reading in order to contribute to and benefit from the discussions in both the lectures and the tutorials.

Prerequisite: ECO 100/102.

ECO 340S **The Economics of Manpower**

This course applies the tools of labour economics to selected problem areas including education and training; mobility; unemployment; wages and prices; the security of employment; and poverty. The purpose of the course is to examine these problem areas in terms of their relation to the operation of labour markets.

Prerequisite: ECO 339F.

ECO 344 **Industrial Relations**

This course will cover the following areas: labour movement, its history, structure and philosophy; labour regulations with emphasis on Canadian law; collective bargaining — nature of the negotiation process, theories of bargaining, the role of conflict, third party intervention, emergency disputes, grievance procedures; the issues in col-

lective bargaining — terms and conditions of employment; collective bargaining and economic formulation.

POLITICAL SCIENCE

RECOMMENDED INTRODUCTORY COURSES

POL 100 Introduction to Canadian Politics

A study of the political process in Canada, including Canadian political culture, the formation of public opinion, political behaviour, political parties, the constitution, federalism, French Canada, federal-provincial financial relations, and the structure and functioning of political institution, such as the cabinet, parliament, the judiciary, and the public service.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

POL 200 Political Theory

The development of political thought from the dialogues of Plato to the controversies surrounding the French revolution. Among the theorists examined are Aristotle, Machiavelli, Hobbes, Locke and Rousseau.

POL 203 Politics and Government of the United States

During the first term, this course concentrates on the evolution of the American constitution with particular reference to individual rights, federalism and governmental powers. In the second term, the course deals with the actual operation of government through the workings of politics and administration; it covers executive-legislative relations, parties, pressure groups, the bureaucracy, and foreign affairs.

NOTE: The following courses are also open to First Year students at the discretion of the instructor if space is available and pre- and co-requisites are satisfied.

POL 204 Politics and Government of the U.S.S.R.

An introduction to the domestic politics and foreign relations of the U.S.S.R., with emphasis on the post-Stalin era. The initial phase will be taken up with the political history, political culture, and institutions of the U.S.S.R., and with a consideration of alternate approaches to the study of Soviet politics. Detailed attention will then be given to the Soviet policy process in both domestic and external affairs. Although the stress will be on internal politics, roughly a quarter of the course will be devoted to external affairs and the impact of external events and foreign policy considerations on the Soviet domestic scene will be emphasized throughout.

POL 205 Politics and Government of the United Kingdom

The first part of the course will consist of a survey of the British political system. The second part will consist of seminars on selected topics. Some of the topics will be, the reform of the Civil Service, the role of trade unions in the political system, the revisionism controversy in the labour party, the nationalization issue, the Common Market controversy, Britain and Rhodesia. Students are encouraged to read S. H. Beer, *British Politics in the Collectivist Age*.

POL 206 Quantitative Methods for Political Science

This course will treat the main topics in statistics relevant to quantitative work in Political Science: problems of measurement and scaling, empirical frequency distributions, measure of central tendency and dispersion, regression, correlation, probability and theoretical distributions, tests of hypotheses, estimation, analysis of variance. Students will be expected to work examples and to report on published studies using the techniques under discussion. The course will not be one of research methodology, treating for example, topics such as questionnaire construction, but if possible, groups of students will be encouraged to undertake projects of a limited extent that may require them to gain some knowledge of those subjects.

Reference: V. O. Key, *A Primer of Statistics for Political Scientists*.

NOTE: The following courses are also open to Second Year students at the discretion of the instructor if space is available and pre- and co-requisites are satisfied.

POL 300 Comparative Government

The course will focus on the problems of defining "responsive government", utilizing the Soviet and American political systems as the primary source of illustrative materials. The tutorial sessions will centre on a class research project which examines some aspect of the political system of Canada or Toronto in an attempt to explore in more concrete detail the theoretical generalizations discussed in lectures and readings.

POL 305 Politics and Government of Latin America

POL 306 Introduction to International Relations

This course involves an examination of the interactions between states and the factors (both international and national) that determine state behaviour. Focusing on conflict and its causes, the course looks at the institutions, policies and norms that states have devised to erect the structures of peace.

POL 320 Modern Political Thought

This course examines the development of political thought in the period beginning after the French Revolution and continuing through the nineteenth century, with special attention to the implications of this development for political thought in the twentieth century. Both democratic and anti-democratic tendencies are considered.

Prerequisite: POL 100/101/200.

POL 326 International Relations

Prerequisite: POL 100/101.

POL 327 Comparative Foreign Policy

PSYCHOLOGY

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

PSY 100 Introductory Psychology

A full year course strongly recommended for all other Psychology courses. Instructors in all subsequent courses will assume the student has the background knowledge provided by PSY 100. The course surveys various areas of contemporary psychology, its methods, problems, and current status.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

PSY 200F Statistics and Research Methods

This course deals with descriptive statistics and basic statistical inference. Students will learn techniques to describe data graphically and numerically and to test statistical hypotheses. No mathematical sophistication beyond Grade XII is necessary, but the student who feels rusty should review.

Suggested prior course: PSY 100.

PSY 201S Statistics and Research Methods

A continuation of PSY 200F. This course will focus on the conceptual foundation underlying inferential statistics (probability) and statistical techniques (analysis of variance, regression analysis), and computer applications.

(May not be combined with GGR 270, GLG 221Y, STA 232, STA 242, STA 252, ECO 220, POL 206, SOC 201 in any degree programme.)

Prerequisite: Knowledge of basic statistics (PSY 200F) is assumed.

PSY 202F Developmental Psychology: Social and Personality Development

Social attachment, aggression, morality, identification, achievement.

Suggested prior course: PSY 100.

PSY 202S Developmental Psychology: Social and Personality Development

The same as PSY 202F.

Suggested prior course: PSY 100.

PSY 203F Introduction to Social Psychology

A survey of contemporary areas of research in social psychology. Areas to be considered include social perception, attitudes, interpersonal relations, group processes, and ethnic attitudes.

Suggested prior course: PSY 100.

PSY 203S Introduction to Social Psychology

The same as PSY 203F.

Suggested prior course: PSY 100.

PSY 204F Personality

Emphasis on empirical research, e.g. authoritarianism, need for achievement, manifest anxiety, self-concept.

Suggested prior course: PSY 100.

PSY 204S Personality

The same as PSY 204F.

Suggested prior course: PSY 100.

PSY 205S Differential Psychology

Genetic and environmental bases of individual differences in intelligence and personality. Family, sex, class, and race differences.

Suggested prior course: PSY 100.

PSY 206F Introduction to Learning

This course provides a foundation to the area of conditioning and learning. It will focus on classical conditioning and instrumental learning and will be concerned with the problem of reinforcement, the phenomena of extinction, generalization, and discrimination.

Suggested prior course: PSY 100.

PSY 207S Introduction to Learning

This course will begin with a consideration of basic classical and instrumental conditioning phenomena but will go on to examine more cognitive interpretations. In the light of these considerations, a survey will be given of such more typically "human" areas as the development of speech, the acquisition and retention of verbal material, and various views on the nature of memory.

Suggested prior course: PSY 100.

PSY 208S Sensory Processes and Psychophysics

Introduction to the study of sensory processes, psychophysics, and scaling. It includes: (1) general methodological problems in the study of sensation and perception; (2) the structure and physiological functioning of some sensory systems; (3) the physical description of stimuli; (4) some basic sensory processes such as detection and discrimination and variables relevant to them. Suggested prior course: PSY 100.

PSY 209F Introduction to Physiological Psychology

Course will emphasize the relation of physiological and neurological information to the study of behaviour. Topics covered will be elements of neurophysiology, neuroanatomy, and research methodology in physiological psychology with a view to introducing the application of knowledge in these areas to our understanding of the behaviour of organisms. Suggested prior course: PSY 100.

PSY 209ES Biological Foundations of Behavior

The relationship of neural and biochemical information to the study of behaviour. The biological events underlying behavioural phenomena will be explored.

PSY 215EF Developmental Psychology

The examination and analysis of the development of organisms. Both animal and man will be studied with reference to genetics, maturation and early experience.

PSY 216ES Experimental Design and Theory

The logical structure of psychological theories; problems involved in the design of experiments; the interpretation of experimental findings. Practice in the critical evaluation of experimental designs and the correction of experimental errors.

PSY 300F Developmental Psychology: Comparative Behavioural Development

An examination of the development of psychological processes in the individual. The processes included in this survey will include learning, motivation, emotion, attachment and socialization and the acquisition of language. The emphasis will be on the psychological processes rather than on the species being studied. Suggested prior course: PSY 100.

PSY 301F Developmental Psychology: Cognitive and Sensory Development

Learning, problem-solving, thinking, concept formation, with strong accent on Piaget's theory of

cognitive development throughout the age span. (Not open to students who took PSY 200 or 202 in 1968-69 or before.)

Suggested prior course: PSY 100.

PSY 301S Developmental Psychology: Cognitive and Sensory Development

The same as PSY 301F.

Suggested prior course: PSY 100.

PSY 302S Social Psychology: Attitudes

Intensive study of social attitudes and opinions — their development, description and measurement, modification, and organization.

Suggested prior courses: PSY 100 & 203.

PSY 304F Social Psychology: Inter-personal Behaviour

Detailed analysis of some of the determinants and consequences of various forms of social interaction; conformity and social influence, social comparison, affiliation.

(Not open to students who took PSY 204, 304, 340 or 360 in 1968-69 or before.)

PSY 304S Social Psychology: Inter-personal Behaviour

The same as PSY 304F.

(Not open to students who took PSY 204, 304, 340 or 360 in 1968-69 or before.)

Suggested prior courses: PSY 100 & 203.

PSY 305F Psychology of Language

An examination of modern psychological and linguistic theories of language behaviour and of experiments and observational studies based on these theories.

Suggested prior course: PSY 100.

PSY 306S Personality and Social Interaction

Intensive examination of selected areas of research in personality and social interaction. Discussions, papers, projects.

Suggested prior courses: PSY 100 & 204 and two half-courses in Social Psychology.

PSY 307F Personality Assessment

Analysis of concepts and methods for the measurement of personality, including statistical analysis of reliability and validity; norms, observational methods, structured tests, interview, projective techniques, nonreactive measures. Ethical problems in assessment. NOT a course in test administration.

Suggested prior courses: PSY 100 & 204.

PSY 313F Conditioning and Behavioural Control
The analysis of factors controlling human and animal behaviour from the point of view of conditioning.
Suggested prior course: PSY 100.

PSY 319S Physiological Psychology: Physiology of Sensory—Motor Behaviour
Physiological bases of sensory-perceptual and motor behaviour. Importance of developmental processes on sensory-motor coordination.
Suggested prior courses: PSY 100 & 209.

PSY 320 Learning Laboratory
Independent projects in the general area of learning.
Suggested prior courses: PSY 100 & 206/207.

PSY 330F Abnormal Psychology
A survey of theories and research in psychopathology and psychotherapy with special emphasis on social learning theory and behaviour modification techniques.
Suggested prior course: PSY 100.

PSY 330S Abnormal Psychology
The same as PSY 330F.
Suggested prior course: PSY 100.

PSY 332S Motivation
A biological approach to the problems of the causation of behaviour. Topics will include: (1) stimulus, chemical, and neural factors; (2) the problems of unitary drive, and an examination of selected drive systems; (3) interactions among drive systems; (4) the problem of reinforcement.
Suggested prior course: PSY 100 or Introductory Biology.

PSY 333S Human Motivation
A survey of different approaches to the study of human motivation. Although human applications and data from experiments involving humans will be stressed, experimental research with animals will be discussed as it is relevant to humans. Such topics as learning, punishment, anxiety, emotions, psychoanalytic theory, cognitive dissonance will be discussed.
(Not open to students who took PSY 260 in 1968-69.)
Suggested prior course: PSY 100.

PSY 369EF Child and Adolescent Psychology
Examination of the relations between socialization and the myriad characteristics of adolescence, including cognitive processes, values, and interpersonal behaviour.

PSY 375EF Psychology and Communication
Designed to explore critical relationships between psychological variables and the news me-

dia, politics, theatre, films, television, etc. Student research reports will become the focus of topical discussions. (Confrontation and open warfare of a non-violent nature will be accepted, if not actually encouraged.) Limited enrolment.

RELIGIOUS STUDIES

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

REL 100 Religious Traditions, East and West
A study of the ideas, attitudes, practices, and contemporary situation of the Judaic, Christian, Muslim, Hindu, Buddhist, Confucian, Taoist, and Shinto faiths.

REL 201 Christianity and Christendom
A lecture and reading course in the history of the doctrines and institutions of the Christian Church in its first thousand years.

REL 230E The Roles of Religion
The positive and negative roles which religion has played and continues to play in human maturation and in the evolution of the universe. A general analysis of personhood, authentic human living, self-transcendence. The phenomenon of faith; religion as wonder; religion as meaning; religion as health.

COURSES OPEN TO SECOND-
AND HIGHER-YEAR STUDENTS

REL 305 Basic Ideas and Practices of the Jewish Religion
Central affirmations of Jewish faithfulness: Covenant, Revelation, God and Man. Jewish devotional life: Sabbath, festivals, daily piety.

REL 317 Religious Dimensions of Human Behaviour
A study of the changing roles of religion in the process of growth and development, individual and social.

SLAVIC LANGUAGES AND LITERATURES

COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS

SLA 100 First Year Russian
Fundamentals of Russian grammar. Practice in aural comprehension, speaking, reading and writing.
(May not be combined with SLA 121 in any degree programme.)

SLA 208 Elementary Ukrainian

Grammar, composition; emphasis on reading knowledge. Voluntary language laboratory for those wishing practice in spoken Ukrainian.

**COURSES OPEN TO SECOND-
AND HIGHER-YEAR STUDENTS**

SLA 210 The Nineteenth Century Russian Novel

Reading in translation of major works by Pushkin, Gogol, Turgenev, Goncharov, Dostoevsky, Tolstoy and others. The development of the novel as a literary form: structural and thematic evolution; native and foreign influences — Romanticism and Realism.

(May not be combined with SLA 240 in any degree programme.)

SLA 212 Russian Drama

An historical survey of the Russian theatre: origins, development of genres, relations with prose, poetry, and opera, impact on modern Western drama. Plays in translation from the classical (Fonvizin, Griboedov), romantic (Pushkin, Gogol), realistic (Ostrovsky), modernistic (Chekhov, Blok, Mayakovsky), and Soviet repertory.

SLA 220 Second Year Russian

Study of more difficult areas of morphology; syntax: the simple sentence. Reading of literary selections and works of non-fiction. Oral practice. Composition and translation; conversation based on reading and topics of current interest.

(May not be combined with SLA 120/221 in any degree programme.)

Prerequisite: SLA 100.

SLA 240 The Nineteenth Century Russian Novel

Same as SLA 210, but with some readings in Russian. Lectures in common with SLA 210 but separate tutorial groups. Required for specialists in Slavic Languages and Literatures.

(May not be combined with SLA 210 in any degree programme.)

Co-requisite: SLA 220/221.

SLA 310 The Twentieth Century Russian Novel

Major trends in pre- and post-revolutionary Russian literature. Particular attention will be paid to Gorky, Kuprin, Bunin, Andreev, Merezhkovsky, Bely and Sologub in the first term; and to Zamyatin, Babel, Olesha, Leonov, Fadeev, Pasternak and Solzhenitsyn in the second term. Readings in translation.

[May not be combined with SLA 340 (or †SLA 325/426) in any degree programme.]

SLA 320 Third Year Russian

Continued study of grammar: syntax and especially difficult areas of morphology. Composition,

translation and stylistic analysis of selected texts. Oral practice in class and in laboratory based on assigned readings. Extensive reading programme.

[May not be combined with SLA 321 (or †SLA 322) in any degree programme.]

Prerequisite: SLA 220.

SLA 340 The Twentieth Century Russian Novel

Major trends in pre- and post-revolutionary Russian literature. Particular attention will be paid to Gorky, Kuprin, Bunin, Andreev, Merezhkovsky, Bely and Sologub in the first term; and to Zamyatin, Babel, Olesha, Leonov, Fadeev, Pasternak and Solzhenitsyn in the second term. Readings in the original and in translation. Required for Specialists in Russian and Slavic.

[May not be combined with SLA 310 (or †SLA 325/426) in any degree programme.]

Co-requisite: SLA 320/321.

SOCIOLOGY

**COURSES OPEN TO FIRST-
AND HIGHER-YEAR STUDENTS**

NOTE: SOC 101-106 are introductory courses. No two of these may be combined, nor may any one be combined with †SOC 100/101, in any degree programme. Any one of these courses is strongly recommended as preparation for all other SOC courses. Instructors in subsequent courses will assume the student has the background knowledge provided by an introductory sociology course. More detailed descriptions of SOC 101-106 may be obtained from the Department of Sociology.

SOC 101 Analysis of Human Behaviour

This course explores, through lectures, discussion groups and field work, how one understands the patterning of human (social) behaviour. Illustrations are drawn from a range of instances from small to large-scale social phenomena.

SOC 104 Industrial Society

An introduction to sociological analysis with an emphasis on the social sources and consequences of economic change and political stability and instability.

**COURSES OPEN TO SECOND-
AND HIGHER-YEAR STUDENTS**

NOTE: More detailed descriptions of SOC 201-205 may be obtained from the Department of Sociology.

SOC 201 Statistics and Research Methods

An introduction to the logic of research procedures, methods of collection, presentation and

analysis of sociological data, including an elementary consideration of the principles of quantitative research.

(May not be combined with GGR 270, GLG 221Y, STA 232, STA 242, STA 252, ECO 220, POL 206, PSY 201S in any degree programme.)

Suggested prior course: Any one of SOC 101-106.

SOC 202 Structure of Inter-Personal Relations

The study of patterned relationships, social roles and social expectations which arise out of interactions among individuals.

Suggested prior course: Any one of SOC 101-106.

SOC 203 History of Social Theory

This course is concerned with the development of sociology and with the works of particular sociologists whose concepts not only have historical interest but also have relevance to contemporary sociology.

(May not ordinarily be combined with SOC 313 in any degree programme.)

Suggested prior course: Any one of SOC 101-106.

SOC 205 Urban Sociology

Examines the city both as a significant development in world civilization and as a working mechanism guided by contemporary policies and studies human behaviour in its multifaceted relations with the urban environment.

Suggested prior course: Any one of SOC 101-106.

SOC 302 The Sociology of the Family

The development of the contemporary Western family with special emphasis on the changing relations among its members.

Prerequisite: One course in SOC.

SOC 303 Canadian Society

An analysis of the changing structure of Canadian society.

Prerequisite: One course in SOC.

SOC 305 Sociology of Religion

In this course various theories of religious behaviour and organization will be examined. The role of religion in relation to social change and social integration will be given special attention. Current research and methods of study will also be stressed.

Prerequisite: One course in SOC.

SOC 310 Race and Ethnic Relations

Analysis of the impact of racial, ethnic, and linguistic heterogeneity on various economic processes, on the institutional and non-institutional access to political power, and on self conceptions, social attitudes, and personality characteristics. The formation, maintenance, and disap-

pearance of ethnic communities will also be considered.

Prerequisite: One course in SOC.

SOC 311 Sociology of Education

Focuses on the relationship between education and society in comparative perspective; on the internal structure of educational systems and on the educational consequences of different organizational arrangements; on the current controversies surrounding the function and structure of the university.

Prerequisite: One course in SOC.

SOC 312ES Population and Society

An analysis of mortality, fertility, migration, and their relation to population, social structure, mobility, and social change.

ZOOLOGY

COURSES OPEN TO FIRST- AND HIGHER-YEAR STUDENTS

B10 100 Principles of Biology

See description under Biology.

B10 120 Evolutionary and Environmental Biology

See description under Biology.

COURSES OPEN TO SECOND- AND HIGHER-YEAR STUDENTS

ZOO 212 Physiology and Development (formerly ZOO 323)

The course emphasizes the contribution of the study of parts of animals to biology. It consists of selected topics of general interest. Some of these are: (a) levels of organization, organelles, cells, organs; and (b) developmental and functional interrelationships of cells and organs. Both physiology and developmental biology are used as examples of experimental science.

Prerequisite: None. (BIO 100/120 is suggested as preparation.)

ZOO 250 Comparative Anatomy (formerly ZOO 350)

A course on the structural diversity and classification of vertebrates.

Prerequisite: None. (BIO 100/120 is suggested as preparation.)

ZOO 253 Invertebrate Zoology (formerly ZOO 423)

The classification of the Invertebrate Phyla emphasising the laboratory study of the diversity of each group together with the fundamental organization of a number of examples of the major Phyla. Collections and microscope preparations are submitted for credit.

Prerequisite: ZOO 220.

APPLIED SCIENCE AND ENGINEERING

COURSE DESCRIPTIONS

(Open to Engineering students only)

13. Mathematical Applications and Computer Programming

Problems will be assigned to illustrate engineering applications of mathematics. Many of the solutions will apply first-year mathematics to solve problems in Applied Mechanics, Chemistry or Electricity. The concepts of algorithms, stored programs and computer coding will be introduced; some of the more time-consuming numerical and non-numerical applications will be solved with the aid of a computer.

135. Engineering Graphics

An introductory course designed to give the student a foundation in spatial visualization and an appreciation of the various graphical techniques used in representation and in the solution of engineering problems. The lectures are mainly concerned with descriptive geometry, i.e., with the principles of orthographic, oblique and perspective projection and their use in solving problems involving points, lines and surfaces. In the laboratory, problems are solved in descriptive geometry, engineering drawing, empirical equations, charts and graphs. Both instrument and freehand techniques are used. Textbooks: Graphic Science — French and Vierck, 2nd edition; Graphic Science Problems — Vierck and Hang, 2nd edition.

600. Chemistry

Chemical theory, with industrial and engineering applications.

601. Chemical Laboratory

A laboratory course illustrating the fundamental laws of chemistry as dealt with in the lecture course, and providing an introduction to chemical analytical methods.

700. Electricity

A basic course in electricity and magnetism including electric forces and fields, analysis of direct-current circuits, magnetic forces and fields, induction, and an introduction to the conductive, magnetic and dielectric properties of materials.

2410. Algebra and Analytic Geometry

Vectors, linear algebra, matrices, solution of linear systems of equations, linear transformations, eigenvalues, linear programming, complex numbers, quadrics.

2411. Calculus

Limits; derivatives, integrals and their properties with applications; circular and exponential functions and their inverses; differential equations.

2501. Structure and Properties of Matter

Conservation Laws for Particle Systems. Central Forces — Gravitational and Electrical Thermodynamics. Waves — Mechanical and Electromagnetic. Relativity. Quantum Theory, the Atom, Complex Atoms. Solid State Physics. The Nucleus, and Nuclear Transformations. Elementary Particles.

BACHELOR OF EDUCATION PROGRAMME

COURSE DESCRIPTIONS

One course is to be selected from each of Parts II and IV (open to those students in the Bachelor of Education programme ONLY)

COURSES OFFERED IN PART II, EDUCATIONAL THEORY

Administration and Program Development

400.2 Program Development

An examination of the role of the teacher as a designer of educational experiences within the school program. Emphasis will be given to the application of current theory and practice of curriculum design to the development of specific school programs which attempt to meet a variety of individual and societal needs. Participants will undertake individual projects as well as participate as a member of a curriculum team in the production of group materials.

400.3 The Individual Student and the School Program

School programs and practices which meet individual differences among students. A general study will be made of innovative teaching and organizational patterns, including particularly the non-graded school, credit organization, house plans, team teaching, independent study, and other related topics.

400.4 Administration in the Modern School

A practical study of the use and organization of school resources and services in providing an effective educational program. Emphasis will be placed on the role of the teacher in phases of school operation such as discipline, staff relationships, organization of classes, individualizing instruction, evaluation procedures, and the design and implementation of overall school programs.

400.5 Administration within the School System

A review of planning and administrative procedures in large systems of education. Particular emphasis will be given to the organization of learning resources, student services, and parent-teacher-student relationships. The interaction of trustees, senior officials, resource personnel, and school administrators will be considered. The

effectiveness of large systems in formulating and in achieving desirable educational programs for the individual student and for society as a whole will provide a constant focus for study.

Educational Psychology

414.1 Psychology Applied to Education

Open to all students. Designed to show relevance of general Psychology to teaching. Provides an overview of the areas of Psychology related to education and teaching; problems in human communication, role of feedback, non-verbal communication, mass media, T.V., radio. Modern theories of learning will be examined and compared; the relevance of learning theory to motivation, aptitudes and attitudes, learning discrimination and skills, the slow learner, development, maturation and special education, research in education, programmed learning and computer-assisted instruction.

414.2 The Adolescent — At Home, in School and in the Community

The adolescent period; adolescent needs and processes of adjustment; the adolescent and social class; adolescent-adult relationships; the adolescent and his peer group; physical development; intellectual development; development of interests, attitudes and values; heterosexual development of adolescents; adolescent disciplinary problems; adolescent delinquency.

414.3 Teaching — An Interpersonal Process I

The teacher as partner in an interpersonal learning process; increased awareness and insight about forces operating in groups; how one's own behaviour affects group productivity; application of theory to development of innovative plans for better classroom teaching using large and small groups.

414.4 Teaching — An Interpersonal Process II

This course is planned for students who wish to pursue in greater depth the areas of study included in Course 414.3. In addition, it will include enquiry into the principles of sensitivity training and the various types of encounter groups, and the way in which experience in small group living will increase the awareness of the forces affecting the teacher and the student in the school situation. Increased self-understanding and the ability to structure the social environment.

History, Philosophy, Sociology of Education

426.1 Comparative Education

Much of the content of this course can be determined by the interests of students enrolling for it. In general terms it may be concerned with methods in comparative education, with certain distinctive features in the educational systems of Canada and other leading countries in the western world, and with trends towards international cooperation in education.

426.2a Dilemmas of Contemporary Education I

The course is aimed at introducing the student to the dilemmas of contemporary education. These dilemmas include the contrasting of traditional approaches to education and contemporary theories; the problem of learning in the era of the 'knowledge explosion'; the place of the specialist in the schools; the interrelationships of the disciplines; the role and function of the teacher in the changing social structure; and so on. Various theories proposed as means of overcoming these problems will be considered, and it is hoped to obtain practical experience in dealing with them in Course II described below.

426.2b Dilemmas of Contemporary Education II

This course is specifically designed to complement Course 2(a) described immediately above. The emphasis will be on putting theories into operation. Problems involving various disciplines will be studied and interdisciplinary approaches to clarifying issues will be attempted. An effort will be made to establish bonds with other departments of The College so that the student can learn by experience of the impact of one discipline on another. The course is experimental. No prerequisites are imposed, but the number of students taking Courses I and II will of necessity be limited.

NOTE: Dilemmas of Contemporary Education I and II are concurrent courses; that is, a student who registers in one must register in the other.

426.3 Modern Philosophy and Education

Through the examination of selected modern philosophical works, this course will deal with such key problems (among others) as human freedom, coercion in the classroom, the problem of absurdity, social philosophy and educational theory, approaches to student-centred education, the influence of modern philosophy on methodol-

ogy in education. Conflicting viewpoints in recent philosophy will also be introduced and examined speculatively in an educational context.

426.4 Progressive Education in Theory and Practice

An analysis and discussion of progressive theories and practices over the past two hundred years, with special reference to the ideas of Rousseau, Dewey, and Ontario's Hall-Dennis Report, for the purpose, in the main, of inducing beginning teachers to search constantly for meaning in such familiar learning concepts as interest, activity, discovery, assimilation, freedom, authority, natural growth, creativity, continuous progress.

426.5 School and Society

This course will involve a consideration of such problems as socio-cultural influences on educational achievement, value conflicts (between generations and among socio-economic classes), and the conflicting functions of the school as an institution for transmitting the cultural heritage as well as criticizing it. An analysis of these problems will uncover such issues of current concern to schools and teachers as 'the generation gap', 'educational control', 'student power'.

426.6 Sociology of Education

An examination of the school as an institution in the society which it serves. Topics will include the structure of society and education, education and social change, education and social mobility, the socialization of the child, the social role of the teacher, the influence of economic and political forces on education, education and the values of the community and the nation, education and international relations. Students will be expected to relate the principles discussed to their own communities. Previous university work in sociology is desirable but not mandatory.

426.7 Values in Education

An examination of selected topics in value theory seen within the educational context. Examples of possible topics: authority and freedom; perception and judgment in education and the arts; the aims of education; valuational impact of the mass media; the teacher and the new morality; expression, representation, and value formation; conceptual analysis of the educational environment. No formal background in philosophy is required.

COURSES OFFERED IN PART IV, ADDITIONAL RELATED COURSES

Administration and Program Development

455.19 Teaching as a Profession

A study of the development of teaching as a profession; the current status of the profession, and new orientations within the North American context; interprofessional relationships.

455.20 The School's Institutional Setting

An analysis of the school as a social institution, emphasizing its relationship to other social structures and the impact of these on the teacher and teaching.

455.25 Evaluation: Measuring Student Performance

A study of current evaluation practices in the schools. The course will develop some of the theoretical issues underlying evaluation methods, the design and marking of a wide variety of testing instruments, including essay, objective, oral, project, and self-assessment. The fair assessment of individuals, comprehensive systems for schools, distinctions between subjects, home reporting, concepts of promotion and failure, and grading systems will also be considered.

455.26 Research Methods in Education

This course will introduce students to methods of research used in Education. Emphasis will be directed to research in Educational Administration and Program Development. During the course students will develop a research project of their own.

History, Philosophy, Sociology of Education

455.28 Educational Issues in Perspective

The intention is to seek an understanding of basic — *ipso facto* contemporary — issues in education through examining the writings of selected educators of the past and present. Students will have a voice in selecting themes and authors, and will be expected to share in the reading, the presentation of papers, and the exchange of views through class discussion upon which the success of this course will largely depend.

455.11 History of Education: A Reading-Discussion Course

For a course of this kind enrolment is limited to seminar proportions. Students are invited to share the reading and subsequent discussion of selected influential educational writings by famous or well-known writers, past and contemporary. The intention is to learn from direct sources

and to see current developments in this perspective.

455.33 Marxist Educational Theory

This course will be given in the form of a one-hour lecture and a one-hour question and discussion period each week. The first half will concentrate on basic writings of Marx, Engels, and Lenin. The second half will deal with Makarenko, Krupskaya, Lunacharsky, and Kalinin. There will be no formal examination in this course, but students will be required to submit a major paper on some aspect of Marxist educational theory in discharge of their obligation to show competence.

Educational Psychology

455.12 Introduction to Child Psychology

Motivation; why children learn; physical characteristics and school behaviour; children's abilities; children as social creatures; personality adjustment.

455.16 Principles of Programmed Learning

Preparing and structuring objectives; programming styles; linear and branching; principles of writing and revising programs; feedback; computer-assisted instruction; program evaluation.

English

455.22 The Language Arts of the Cinema

The course is designed to study trends in contemporary cinema. Although the course concentrates mainly on feature films of such directors as Hitchcock, Bergman, Varda, Antonioni, Fellini, Godard, Truffaut, Resnais, Losey and Lester, it does not neglect the popular cinema nor does it omit experimental short films. The several arts of the director, script writer, actor, editor, lighting-cameraman, composer, and sound man are studied so that the students may have a full appreciation of the language arts amalgam that we experience in the cinema. Enrolment is limited.

455.27 Developmental Reading

This course is designed to introduce students to the possibilities of developmental reading at the secondary school level. Basic principles underlying an instructional program will be discussed. Specific methods of determining reading achievement, selecting patterns of organization, and planning the instructional program will be introduced. Of major emphasis will be the devising of practical developmental reading programs. Enrolment is limited.

Geography

455.03 Curriculum Theory and Design: A Research Seminar

Enquiry into the theory and design of a curriculum and the examination of curriculum projects in the field of social studies and geography at the elementary and secondary school levels.

455.10 Game Theory and Simulation in Relation to Learning

An introduction to game theory and simulation as an approach to learning in geography and social science.

455.18 Special Education for the Disadvantaged Learner

An introduction to the scope and range of this specialized field in education related to the needs of exceptional children. (Students who enrol must be prepared to meet with guest instructors at various times and places.)

Mathematics

455.23 Research Project in Mathematics Education

A study in depth of a selected problem in mathematics education involving a combination of seminar, laboratory work and field experience. This study is intended for students who are primarily interested in the teaching of mathematics. Enrolment is limited.

Modern Languages

455.01 Applied Linguistics

Study of different applications of linguistic theories to the teaching of French; special attention to problems of phonemics, morphology, syntax and semantics in connection with the data of structural linguistics. This course is open to any student of French.

455.29 Culture and Society as it relates to the teaching of French

Historical, social and regional factors, with emphasis on French Canada.

455.02 Culture and Society in German Language Teaching

Historical, social and regional factors in the teaching of modern German; a laboratory approach.

455.07 Electronic Aids to Language Learning

Audio-video equipment, including all laboratory types. (This course, largely televised, includes practice at equipment manipulation. It presupposes an interest in, but no knowledge of, elec-

tronic aids to learning. It is not to be chosen by Type A French II candidates, whose course already covers much of this work; otherwise, it is open to any foreign modern language student.)

455.21 French at the Elementary School Level

French as a second language from the earliest grades of the elementary school; programs; procedures specific to the age level; audio-visual aids.

Computer Studies

455.05 Computers in Education

This course is designed to study the use of the computer as an instructional and as an administrative tool. Areas to be discussed include: Computer-Assisted Instruction, Test Scoring, Item Analysis, Curriculum, Educational Research, Student Accounting and other student-oriented areas. Emphasis is on the computer as a problem-solving tool. Prior computer courses or knowledge is not required. Access to the computer centre will be available to students for class-assigned and other approved projects.

455.24 Educational Tests and Measurements

This course emphasizes the practical approach to tests and measurements. Students will be required to construct tests and use the computer to evaluate their results. Other areas of study include: techniques of measurement; test construction; application of testing; and concepts of educational measurement. Computer training or experience not essential.

Science

455.09 Environmental Studies in Science

This course consists chiefly of the development of environmental studies that can be performed by secondary school students of Science. Areas of study include ponds, streams, forests, grasslands, wetlands, sand dunes, soils, and environmental pollution. Field experience is provided. A background in ecology is desirable.

550 Seminars in Science

The methodology and content of the Science programs in the Senior Division; the organization of the Science programs; the role of the specialist teacher and the Department Head.

550.01 Seminar in Biology

550.02 Seminar in Chemistry

550.03 Seminar in Physics and, in part, Mathematics and Physics

Physical and Health Education**455.04 Current Health Problems in North American Society**

Survey course including lectures and seminars related to such health areas as cardiovascular disease, mental health, air and water pollution, consumer health, drugs, and sex education.

455.15 Outdoor Education

An introductory course emphasizing the use of the outdoor environment as an educational media. An interdisciplinary program which includes lectures and seminars and devotes a considerable amount of time to field work.

Educational Media**455.06 Educational Media**

The course will include a study of the basic principles of communication; the use of the various media such as film projectors, tape recorders and television will be a major part of the course.

Technical and Industrial Arts**455.13 Introduction to Vocational, Occupational, and Industrial Arts Education**

Types of certificate, the admission requirements,

history, philosophy, and the means of realizing the aims of these three types of education.

Elementary Education**455.30 Art and Crafts for Elementary Schools**

An introduction to the creative use of media in two and three dimensions; basic design, point, line and shape; print-making; teaching methods; subject integration.

455.31 Music for Elementary Schools

A study of contemporary approaches to music learning in elementary schools. Student teachers in this course will be required to participate in a variety of activities.

455.32 Physical and Health Education for Elementary Schools

A critical examination of teaching procedures which relate specifically to the aims of Physical and Health Education; an activity course based on participation in and examination of games, gymnastics and dance appropriate for the healthy development of children ages 6 to 14.

NURSING

COURSE DESCRIPTIONS

(Open to Nursing students only)

The nursing subjects are designed to help the students extend their knowledge, to identify nursing objectives and to establish principles and concepts for more effective nursing practice.

BIOLOGICAL CHEMISTRY AND HUMAN NUTRITION

103. Lectures and tutorials dealing with inorganic, organic and biological chemistry and their application to the basic principles of human nutrition.

NURSING

110. A study of human development through the phases of the life cycle correlating physiological, psychological and social factors and the implications for nursing in the various community health services.
210. This course includes lectures, discussions and observation visits, which focus on:
- (a) the present concept of nursing and the nursing process
 - (b) community health nursing
 - (c) selected pathophysiological processes and the implications for nursing.

PHYSIOLOGY

321. An elementary lecture course on the principles of human physiology.
371. A course of laboratory exercises and demonstrations to accompany 321. It is designed to give the student an opportunity to acquire a detailed and personal knowledge of some of the most important of the subjects already mentioned in the lecture course and to provide additional material even more directly related to the students' special interests.

PREVENTIVE MEDICINE

300. A study of the problems and practices of preventive medicine. The subject matter reviews the historical development, and an introduction to demography and vital statistics. The basic aspects of infection and immunity are covered, followed by a discussion of the epidemiology of communicable diseases stressing prevention and control. Chronic diseases and accidents are dealt with. The public health aspect of nutrition is presented. A study is made of the trends in major health problems in Canada and other countries. Emphasis is placed on the epidemiological approach, and consideration is given to their control by individual and community action.

PHYSICAL AND HEALTH EDUCATION

COURSE DESCRIPTIONS

(Open to P. & H.E. students only)

AQUATICS

First Year Physical Activity Students will be required to achieve a level of proficiency in selected aquatic activities including the mechanics of diving and competitive swimming.

P.E. 100 — HISTORY AND PHILOSOPHY OF PHYSICAL EDUCATION

An introductory course emphasizing the historical and comparative aspects of physical education and sport, together with basic philosophy as it relates to principles and problems in physical education.

P.E. 103—FOUNDATIONS OF PHYSICAL ACTIVITY

A lecture and laboratory course in which emphasis is placed on an understanding of physical fitness. The laboratory periods include group evaluation procedures, individual fitness appraisal and an introduction to basic conditioning programme.

COURSES LEADING TO TYPE A CERTIFICATION

Any teacher who wishes to use the following courses for credit toward the academic requirements for Type A certification should write to the Director, Advanced Academic Requirements, The College of Education, University of Toronto, for an official ruling on his standing. This will ensure that the courses in which he wishes to enrol will meet the requirements for his academic programme. Each course, when approved, will carry credit at The College of Education towards Type A requirements.

Students who require courses for endorsement purposes should consult the Arts and Science Course section of this calendar for courses which may be acceptable to The College of Education.

A student who wishes to undertake Type A or endorsement courses must apply for admission or register as a Special Student. (See the section on "Application" for regulations governing Special Students.)

The fee for each Type A course is \$115.00.

COURSE DESCRIPTIONS

FOOD SCIENCE

103. Biological Chemistry & Human Nutrition

Prerequisite: Grade XIII Chemistry.

Thursday 7:30-9:30 P.M. Food Sciences Building, Rm 124.

PHYSICAL EDUCATION

100. History and Philosophy of Physical Education

An introductory course emphasizing the historical and comparative aspects of physical education and sport, together with basic philosophy as it relates to the principles and problems in physical education.

Tuesday 7:30-9:30 P.M. McLennan Labs., Rm 134.

203. Motor Learning

A lecture-laboratory course emphasizing the principles of motor learning and the relation of these to human performance in a variety of selected activities.

Wednesday 7:30-9:30 P.M. McLennan Labs., Rm 134.

Aquatics

First Year Physical Activity Students will be required to achieve a level of proficiency in selected aquatic activities.

Monday 7:30-9:30 P.M. Pool—186 Beverley St.

STATISTICS FOR MEDICINE AND THE NATURAL SCIENCES 1006

1. Frequency distributions, histograms and statistical indices.
 2. Probability distributions: (a) Uniform (b) Binomial (c) Poisson (d) Normal, t, and chi-square.
 3. Common statistical tests of significance.
- Tuesday 7:30-9:30 P.M. School of Hygiene.

UNIVERSITY EXTENSION PROGRAMMES

DIPLOMA IN TRANSLATION FRENCH—ENGLISH—FRENCH

This programme is designed for both French and English speaking students and provides a formal training for aspiring translators. The diploma will facilitate access to membership in the professional associations of Canadian interpreters and translators.

CERTIFICATE PROGRAMME IN BUSINESS

providing instruction in the basic principles of modern business. This course is designed for mature men and women in Business, Industry, and in the Civil Services who are in, or working toward, positions of responsibility. Three courses may be undertaken each year. Six are required for graduation.

CERTIFICATE PROGRAMME IN PUBLIC ADMINISTRATION

is intended primarily for those with considerable experience in the public service who wish to acquire a broader background in the political and social sciences essential to an understanding of the executive branch of government and its functions. It is not intended as preparation for those planning to enter public service. Emphasis is on Canadian government at all levels (federal, provincial and municipal), and their major problem areas. One or two courses may be undertaken each year with six subjects required for graduation.

CERTIFICATE PROGRAMME IN CRIMINOLOGY

This course is intended for those with considerable experience in the fields of law enforcement, criminology, adjudication, and the correctional services who wish to deepen their knowledge and understanding of criminology in its various aspects. It examines some of the basic problems of crime, the administration of criminal justice, and the treatment of offenders. One or two courses may be undertaken each year with six subjects required for graduation.

CERTIFICATE PROGRAMME IN PERSONNEL AND INDUSTRIAL RELATIONS

is designed for labour, management and government representatives who have an interest in Personnel and Industrial Relations. The programme combines both theoretical and practical material and is so structured as to permit specialization in either Personnel or Industrial Relations.

PRE-SCHOOL EDUCATION The University of Toronto in co-operation with The Nursery Education Association of Ontario offers a three-part course for the preparation of teachers in pre-school education.

FRENCH SUMMER SCHOOL — SAINT-PIERRE ET MIQUELON

offers non-credit and advanced oral French. Its purpose is to develop the student's ability to speak French and widen his experience of French life and culture through the daily, natural use of the language. Saint-Pierre offers an exceptional opportunity for the student to put into immediate practice what he has just learned in the classroom. In this sense French becomes truly a living language. For the student who cannot go to France this summer, Saint-Pierre et Miquelon offers at a fraction of the cost the next best opportunity to experience a memorable and profitable holiday on French soil. Classes are held each morning of the week except Saturdays and Sundays, in Le Collège St. Christophe on the Island of Saint-Pierre.

CONTINUING EDUCATION PROGRAMMES

enable those wanting to increase their general or specific knowledge to study systematically in a variety of fields. A wide range of courses relevant to such professional and technical areas as business administration and organization; management in industry and small businesses; personnel, sales, and marketing; communications and human relations; economics and finance; mathematics; engineering; operational research; and computer programming, is available.

In addition, there is a programme of special interest courses which includes courses in literature, philosophy, languages, history, psychology, environmental studies, sociology, and anthropology.

CORRESPONDENCE COURSES provide an opportunity for independent guided study. Individual courses are available either by direct enrolment or as part of the educational programmes sponsored by various organizations. Courses do not lead to a credit toward any degree, diploma, or certificate awarded by the University of Toronto; however, the sponsoring organizations do award certificates or designations upon completion of their programme requirements.

UNIVERSITY OF TORONTO CALENDARS

The University of Toronto issues the following calendars and other publications concerning courses of instruction given by the University, any one of which may be had on application to the Office of Admissions of the University, or to the Secretary of the Faculty, School or Institute about which information is sought.

| | | | |
|---|---|---------------------------------------|--|
| Admission Information— | Admission Awards Undergraduate Admission Handbook Undergraduate Admission Bulletin | Food Sciences— | Faculty of Food Sciences |
| Applied Science and Engineering— | Faculty of Applied Science and Engineering Engineering at Toronto — descriptive brochure | Forestry— | Faculty of Forestry Diploma Course in Resource Management |
| Architecture— | Faculty of Architecture, Urban and Regional Planning and Landscape Architecture | Graduate Studies— | School of Graduate Studies |
| Arts and Science— | New Programme 1970 — St. George Campus Scarborough College Calendar Erindale College Calendar | Hygiene— | School of Hygiene |
| Business— | School of Business — Graduate Programmes in Business Administration | Law— | Faculty of Law |
| Child Study— | Institute of Child Study | Library Science— | School of Library Science |
| Dentistry— | Faculty of Dentistry Division of Postgraduate Dental Education Division of Dental Hygiene | Medicine— | Faculty of Medicine, Professional Course Division of Rehabilitation Medicine Division of Postgraduate Medical Education |
| Education— | The College of Education Graduate Degrees in Education* | Music— | Faculty of Music The Royal Conservatory of Music School of Music Year Book General Syllabus Pianoforte and Theory Syllabus |
| Extension— | Continuing Education Programmes in Extension Degree Programmes in Extension Diploma and Certificate Programmes in Extension | Nursing— | School of Nursing |
| | | Pharmacy— | Faculty of Pharmacy |
| | | Physical and Health Education— | School of Physical and Health Education |
| | | Social Work— | School of Social Work |

*Write to: Ontario Institute for Studies in Education, 252 Bloor Street West, Toronto 181, Ontario.

TIMETABLES

KEY

F indicates a half-course given in the First Term only.

S indicates a half-course given in the Second Term only.

Y indicates a half-course given throughout both terms.

S.S.H. indicates Sidney Smith Hall

U.C. indicates University College

Q.P. indicates 47 Queen's Park

/ indicates "or"

† refers to Arts and Science Calendar 1969-70

E indicates a course offered at Erindale College only

Students in Engineering, Nursing, and Physical and Health Education should consult the Arts and Science timetable for options in that Faculty.

EXTENSION COURSES AT SCARBOROUGH COLLEGE

In regard to these courses, the College has undertaken responsibilities of administration and counselling. Further information may be obtained from:

The Registrar's Office,
Scarborough College
1265 Military Trail
West Hill 783, Ontario
Phone — 284-3127



TIMETABLE — ARTS AND SCIENCE WINTER SESSION 1970-71
St. George Campus

| Course | Evening | Time | Instructor | Building | Room |
|----------|-------------------|------------|---|-------------------------|-----------------------|
| ACT 223F | Tuesday | 7:30-9:30 | M. Mather | S.S.H. | 1022 |
| ACT 233S | Tuesday | 7:90-9:30 | M. Mather | S.S.H. | 1022 |
| ANT 100 | Monday | 7:30-9:30 | L. Williams | Medical Sciences | 3154 |
| ANT 203 | Tuesday | 7:90-9:30 | To Be Announced | S.S.H. | 1070 |
| ANT 204 | Wednesday | 7:30-9:30 | R. Healey | S.S.H. | 1069 |
| ANT 241 | Wednesday | 7:30-9:30 | D. Stymeist | S.S.H. | 1071 |
| ANT 340 | Thursday | 7:30-9:30 | To Be Announced | S.S.H. | 1069 |
| APM 236F | Monday | 7:30-9:30 | R. L. Johnston | S.S.H. | 1022 |
| APM 331F | Tuesday | 7:90-9:30 | P. A. Taylor | S.S.H. | 1021 |
| AST 100 | Thursday | 7:00-10:00 | T. Clarke | McLennan Physical Labs. | 137 |
| BIO 120 | Lecture Monday | 7:30-9:30 | J. W. Greer | Ramsay Wright | 110 |
| | Lab Wednesday | 7:30-9:30 | | | |
| BOT 330 | Lecture Monday | 7:30-9:30 | J. H. Sparling | Botany | 7 |
| | Lab Wednesday | 5:30-8:00 | | Botany | 207 |
| CHM 100 | Thursday | 7:30-9:30 | P. I. Plooard | Lash Miller | 158 |
| CHM 120 | Lecture Monday | 7:30-9:30 | J. Szymanski | Lash Miller | 155 |
| | Lab Wednesday | 6:30-10:30 | | | |
| CHM 235 | Lecture Monday | 7:30-9:30 | To Be Announced | Lash Miller | 157 |
| | Lab Wednesday | 6:30-10:30 | | | |
| CIN 202 | Tuesday | 6:00-8:00 | Mrs. R. Davidson | 47 Q.P. | 20 |
| CIN 204 | Wednesday | 4:00-6:00 | J. Skvorecky | U.C. | 104 |
| | | 7:30-9:30 | To Be Announced | S.S.H. | 1022 |
| CIN 300 | Wednesday | 4:00-7:00 | R. Harris | U.C. | 106 |
| CIN 400 | Thursday | 4:00-6:00 | R. Harris | S.S.H. | 1071 |
| COM 100 | Monday | 7:30-9:30 | To Be Announced | Medical Sciences | 3163, 3171 |
| COM 220 | Tuesday | 7:30-9:30 | H. Ripstein | S.S.H. | 1072 |
| COM 401 | Thursday | 7:30-9:30 | S. G. Hennessey | S.S.H. | 1072 |
| CSC 108F | Tues. & Thurs. | 5:00-7:00 | To Be Announced | S.S.H. | 1083 |
| CSC 118S | Tues. & Thurs. | 5:00-7:00 | To Be Announced | S.S.H. | 1083 |
| CSC 148F | Wednesday | 7:30-9:30 | N. Stewart | S.S.H. | 1021 |
| CSC 158S | Wednesday | 7:30-9:30 | P. H. Roosen-Runge | S.S.H. | 1021 |
| CSC 228S | Monday | 7:30-9:30 | S. Glasser | S.S.H. | 1022 |
| EAS 100 | Tues. & Thurs. | 7:30-9:30 | R. Chu, Mrs. C. Lee | S.S.H. | 2116 |
| EAS 112 | Wednesday | 7:30-9:30 | N. K. Wagle | S.S.H. | 1070 |
| EAS 116 | Monday | 7:30-9:30 | J. Dhirasekera | S.S.H. | 1070 |
| EAS 120 | Tues. & Thurs. | 7:30-9:30 | S. Uyenaka | S.S.H. | 2114 |
| EAS 200 | Mon. & Wed. | 7:30-9:30 | R. Chu, A. H. C. Ward | S.S.H. | 2116 |
| EAS 220 | Mon. & Wed. | 7:30-9:30 | S. Uyenaka | S.S.H. | 2114 |
| EAS 222 | Tuesday | 4:00-6:00 | To Be Announced | S.S.H. | 1070 |
| EAS 224 | Monday | 7:30-9:30 | K. Tsuruta | S.S.H. | 1021 |
| EAS 320 | Tuesday | 7:30-9:30 | K. Tsuruta | S.S.H. | 1074 |
| EAS 332 | Tues. & Thurs. | 7:30-9:30 | V. T. Yang | S.S.H. | 1086 |
| EAS 392 | Thursday | 4:00-6:00 | To Be Announced | S.S.H. | 1070 |
| ECO 100 | Thursday | 7:30-9:30 | Miss N. G. S. Denny, G. Grant, B. Singh, To Be Announced | U.C. | 103, 118, 214, 220 |
| ECO 101 | Monday | 7:30-9:30 | To Be Announced | S.S.H. | 1074 |
| ECO 200 | Tuesday | 7:30-9:30 | G. Slasor | S.S.H. | 1084 |

TIMETABLE — ARTS AND SCIENCE WINTER SESSION 1970-71
St. George Campus

| Course | Evening | Time | Instructor | Building | Room |
|----------|----------------|-----------|-------------------------------------|-------------------------|-------------|
| ECO 204F | Tuesday | 7:30-9:30 | J. E. Floyd | S.S.H. | 1088 |
| ECO 205S | Tuesday | 7:30-9:30 | J. E. Floyd | S.S.H. | 1088 |
| ECO 221 | Thursday | 7:30-9:30 | P. Honey | S.S.H. | 1088 |
| ECO 328 | Monday | 7:30-9:30 | F. Mayer | S.S.H. | 1069 |
| ECO 339F | Tuesday | 7:30-9:30 | S. Eastman | S.S.H. | 1071 |
| ECO 340S | Tuesday | 7:30-9:30 | S. Eastman | S.S.H. | 1071 |
| ECO 344 | Tuesday | 7:30-9:30 | J. H. G. Crispo | Medical Sciences | 4171 |
| ENG 108 | Monday | 7:30-9:30 | I. H. Auster, J. P. Dyson | S.S.H. | 1083, 1084, |
| | | | W. M. Lebens, C. C. Love | S.S.H. | 1085, 1086, |
| | | | P. U. Marinelli, P. F. Morgan | S.S.H. | 1087, 1088 |
| ENG 112 | Tuesday | 7:30-9:30 | W. L. Collins, A. H. deQuehan | McLennan Physical Labs. | 257, 373 |
| ENG 212 | Wednesday | 7:30-9:30 | A. R. Cameron, G. A. Hamel, | Ramsay Wright | 142, 143, |
| | | | M. Mueller | | 229 |
| ENG 218 | Monday | 7:30-9:30 | M. Millgate | McLennan Physical Labs. | 118 |
| ENG 230 | Tuesday | 7:30-9:30 | Miss J. L. Levenson | McLennan Physical Labs. | 118 |
| ENG 304 | Wednesday | 7:30-9:30 | W. H. Halewood | S.S.H. | 1074 |
| ENG 308 | Thursday | 7:30-9:30 | H. B. deGroot | S.S.H. | 1074 |
| ENG 312 | Tuesday | 7:30-9:30 | L. W. Patterson | Lash Miller | 123 |
| ENG 322 | Tuesday | 7:30-9:30 | Mrs. A. Patterson | Lash Miller | 155 |
| ENG 324 | Wednesday | 7:30-9:30 | B. S. Hayne | Lash Miller | 123 |
| ENG 332 | Thursday | 7:30-9:30 | A. M. Leggatt | Lash Miller | 123 |
| ENG 348 | Monday | 7:30-9:30 | E. W. Domville | Lash Miller | 123 |
| ENG 350 | Tuesday | 7:30-9:30 | P. D. Seary | Lash Miller | 157 |
| ENG 354 | Wednesday | 7:30-9:30 | O. H. T. Rudzik, F. W. Watt | S.S.H. | 1084, 1086 |
| ENG 368 | Thursday | 7:30-9:30 | H. Kerpneck | Lash Miller | 155 |
| ENG 417 | Monday | 7:30-9:30 | P. R. Allen | McLennan Physical Labs. | 257 |
| ENG 419 | Tuesday | 7:30-9:30 | S. P. Rosenbaum, D. I. B. Smith | Ramsay Wright | 142, 143 |
| FAR 101 | Monday | 7:30-9:30 | To Be Announced | S.S.H. | 2118 |
| FAR 200 | Tuesday | 7:30-9:30 | To Be Announced | S.S.H. | 2118 |
| FAR 420 | Wednesday | 7:30-9:30 | To Be Announced | S.S.H. | 2118 |
| FRE 100 | Wednesday | 7:30-9:30 | H. M. Braithwaite | S.S.H. | 1083 |
| FRE 120 | Wednesday | 7:00-9:30 | Mrs. R. Blenkinsop, D. E. Bouchard, | McLennan Physical Labs. | 053, 118, |
| | | | D. deKerckhove, J. Yashinsky | | 257, 713 |
| FRE 140 | Thursday | 7:30-9:30 | R. Taylor | S.S.H. | 1070 |
| FRE 271 | Monday | 7:30-9:30 | J. C. Rault | McLennan Physical Labs. | 373 |
| FRE 290 | To Be Arranged | | The Department | | |
| FRE 320 | Tuesday | 7:30-9:30 | R. D. C. Finch | McLennan Physical Labs. | 053 |
| FRE 322 | Wednesday | 7:30-9:30 | A. L. Stein | McLennan Physical Labs. | 373 |
| FRE 324 | Thursday | 7:30-9:30 | E. Lehouck | Lash Miller | 157 |
| FRE 330 | Monday | 7:30-9:30 | Mrs. C. Cloutier-Wojciechowska | McLennan Physical Labs. | 053 |
| FRE 368 | Tuesday | 7:30-9:30 | A. Chesneau | McLennan Physical Labs. | 713 |
| FRE 371 | Wednesday | 7:30-9:30 | P. W. Nesselroth | S.S.H. | 1088 |
| FRE 372 | Monday | 7:30-9:30 | R. Hrubí | McLennan Physical Labs. | 713 |
| FRE 374 | Thursday | 7:30-9:30 | D. F. Jourlait | Ramsay Wright | 142 |
| FRE 420 | Tuesday | 7:30-9:30 | W. A. Oliver | Ramsay Wright | 229 |
| FSE 200 | Monday | 7:30-9:30 | A. Auliciems, D. H. Pimlott | 47 Q.P. | 20 |

TIMETABLE — ARTS AND SCIENCE WINTER SESSION 1970-71
St. George Campus

| Course | Evening | Time | Instructor | Building | Room |
|---------------------|-----------|------------|--------------------------------|-------------------|-----------|
| FSM 200 | Monday | 7:00-10:00 | A. Rotstein | Medical Sciences | 2173 |
| FSM 300 | Tuesday | 7:00-10:00 | A. J. Diamond | Medical Sciences | 2173 |
| FST 200 | Tuesday | 4:00-6:00 | W. Harvey | Victoria College | 4 |
| FST 300 | Tuesday | 7:00-9:00 | W. Harvey | Victoria College | 235 |
| GER 130 | Tuesday | 7:00-9:30 | W. Bauer | Ramsay Wright | 141 |
| GER 210 | Wednesday | 7:30-9:30 | C. Butler | Ramsay Wright | 141 |
| GER 220 | Thursday | 7:30-9:30 | W. A. Packer | Ramsay Wright | 141 |
| GER 320 | Monday | 7:30-9:30 | H. Boeschstein | S.S.H. | 2115 |
| GGR 100 | Thursday | 6:30-10:00 | To Be Announced | S.S.H. | 622 |
| GGR 101 | Monday | 6:30-10:00 | K. Hare, K. Hewitt | S.S.H. | 622 |
| GGR 220 | Tuesday | 6:30-10:00 | J. Britton | S.S.H. | 622 |
| GGR 224 | Wednesday | 6:30-10:00 | A. Baker, J. Spelt | S.S.H. | 622 |
| GGR 343 | Thursday | 7:00-9:30 | J. Whitney | S.S.H. | 592 |
| GLG 100 Lecture Lab | Monday | 6:30-10:00 | S. E. Kesler | Mining | 131 |
| | Monday | 6:30-10:00 | | | |
| GLL 190 | Tuesday | 7:30-9:30 | Mrs. A. M. Dabrowski | S.S.H. | 1085 |
| GRH 100 | Wednesday | 7:30-9:30 | T. G. Elliott | S.S.H. | 1085 |
| GRH 203 | Thursday | 7:30-9:30 | T. D. Barnes | S.S.H. | 1085 |
| GRH 313 | Monday | 7:30-9:30 | Mrs. A. M. Dabrowski | S.S.H. | 2106 |
| GRK 100 | Tuesday | 6:30-9:30 | M. B. Wallace | S.S.H. | 2115 |
| HIS 100 | Tuesday | 7:30-9:30 | Mrs. A. Robson | S.S.H. | 1083 |
| HIS 230 | Tuesday | 7:30-9:30 | J. M. Beattie, M. G. Finlayson | S.S.H. | 2106 |
| HIS 262 | Thursday | 7:30-9:30 | G. Patterson | School of Nursing | 101 |
| HIS 271 | Wednesday | 7:30-9:30 | G. M. Craig, P. C. T. White | S.S.H. | 2106 |
| HIS 320 | Thursday | 7:30-9:30 | T. H. Levere | S.S.H. | 2106 |
| HIS 325 | Monday | 7:30-9:30 | M. R. Powicke | S.S.H. | 2108 |
| HIS 346 | Tuesday | 7:30-9:30 | D. C. Higgs | S.S.H. | 2108 |
| HIS 370 | Wednesday | 7:30-9:30 | W. H. Nelson | S.S.H. | 2108 |
| HIS 438 | Monday | 7:30-9:30 | R. J. Helmstadter | S.S.H. | 2119 |
| HIS 447 | Wednesday | 7:30-9:30 | J. Komberg | S.S.H. | 2119 |
| ISL 213 | Monday | 7:30-9:30 | M. Q. Baig | S.S.H. | 2131 |
| ISL 214 | Tuesday | 7:00-9:30 | J. R. Blackburn | S.S.H. | 2131 |
| ITA 100 | Monday | 6:30-9:30 | M. Kuitunen, J. A. Molinaro, | Ramsay Wright | 141, 142, |
| | | | E. Neglia, A. Vicari | | 143, 229 |
| ITA 120F | Thursday | 7:30-9:30 | A. Verna | S.S.H. | 2129 |
| ITA 121S | Thursday | 7:30-9:30 | A. Verna | S.S.H. | 2129 |
| *ITA 220Y | Tuesday | 7:00-9:30 | A. Franceschetti | S.S.H. | 2110 |
| *ITA 221Y | Tuesday | 7:00-9:30 | A. Franceschetti | S.S.H. | 2110 |
| ITA 222S | Wednesday | 7:30-9:30 | Miss P. Frahman | School of Nursing | 52 |
| ITA 223F | Wednesday | 7:30-9:30 | Mrs. M. Corvetti | School of Nursing | 52 |
| ITA 321 | Thursday | 7:30-9:30 | M. W. Ukas | Ramsay Wright | 229 |
| JAL 100 | Monday | 7:30-9:30 | To Be Announced | S.S.H. | 1071 |
| LAT 100 | Monday | 7:00-9:30 | H. J. Mason | S.S.H. | 2110 |
| LAT 120F | Tuesday | 7:30-9:30 | J. N. Grant | S.S.H. | 2042 |
| LAT 122S | Tuesday | 7:30-9:30 | J. N. Grant | S.S.H. | 2042 |
| LAT 222 | Wednesday | 7:30-9:30 | C. J. McDonough | S.S.H. | 2042 |

*Meets on alternate weeks

TIMETABLE — ARTS AND SCIENCE WINTER SESSION 1970-71
St. George Campus

| Course | Evening | Time | Instructor | Building | Room |
|-------------------------|-----------|-----------|---|-------------------------|------------------|
| LIN 201 | Tuesday | 7:30-9:30 | R. A. Wright | S.S.H. | 1069 |
| LIN 333 | Wednesday | 7:30-9:30 | J. K. Chambers | S.S.H. | 1087 |
| MAT 130 | Thursday | 7:30-9:30 | J. C. Beukema, J. E. LeBel | Medical Sciences | 3163, 3171 |
| MAT 225 | Monday | 7:30-9:30 | S. Pierce | S.S.H. | 592 |
| MAT 230 | Thursday | 7:30-9:30 | S. H. Smith | S.S.H. | 2108 |
| MAT 319S | Tuesday | 7:30-9:30 | A. F. Pilow | S.S.H. | 1021 |
| MUS 100 | Thursday | 7:30-9:30 | To Be Announced | Edward Johnson | 116 |
| MUS 223 | Monday | 7:30-9:30 | R. Falck | Edward Johnson | 215 |
| NES 141 | Thursday | 7:30-9:30 | R. F. G. Sweet | S.S.H. | 597 |
| NES 142 | Tuesday | 7:30-9:30 | L. D. Levine | S.S.H. | 597 |
| NES 241 | Wednesday | 7:30-9:30 | E. T. Lutz | S.S.H. | 2131 |
| NES 242 | Thursday | 7:30-9:30 | F. Talmage | S.S.H. | 2131 |
| NES 271 | Monday | 7:30-9:30 | D. B. Redford | S.S.H. | 2042 |
| PHL 100 | Monday | 7:30-9:30 | F. A. Cunningham | S.S.H. | 2102 |
| PHL 150 (St. Michael's) | Tuesday | 7:30-9:30 | E. J. Kremer | Teefy Hall | B |
| PHL 200F | Monday | 7:30-9:30 | L. W. Sumner | Medical Sciences | 4171 |
| PHL 204S | Monday | 7:30-9:30 | W. R. C. Harvey | Medical Sciences | 4279 |
| PHL 205F | Monday | 7:30-9:30 | W. R. C. Harvey | Medical Sciences | 4279 |
| PHL 206F | Monday | 7:30-9:30 | D. Neelands | Lash Miller | 161 |
| PHL 208S | Monday | 7:30-9:30 | D. Neelands | Lash Miller | 161 |
| PHL 210S | Monday | 7:30-9:30 | L. W. Sumner | Medical Sciences | 4171 |
| PHL 211F | Tuesday | 7:30-9:30 | R. B. deSousa | S.S.H. | 592 |
| PHL 212S | Tuesday | 7:30-9:30 | R. E. Allen | S.S.H. | 592 |
| PHL 213F | Wednesday | 7:30-9:30 | L. W. Ferguson | S.S.H. | 592 |
| PHL 214S | Wednesday | 7:30-9:30 | L. W. Ferguson | S.S.H. | 592 |
| PHL 262 (St. Michael's) | Thursday | 7:30-9:30 | W. B. Dunphy | Teefy Hall | B |
| PHY 100 | Thursday | 7:30-9:30 | To Be Announced | McLennan Physical Labs. | 134 |
| PHY 130 Lecture Lab | Tuesday | 6:00-9:30 | To Be Announced | McLennan Physical Labs. | 137 |
| PHY 230 Lecture Lab | Monday | 6:00-9:30 | To Be Announced | McLennan Physical Labs. | 134 |
| PHY 301 | Wednesday | 7:30-9:30 | To Be Announced | McLennan Physical Labs. | 137 |
| POL 100 | Tuesday | 7:30-9:30 | J. Esbrey, R. Williams | Lash Miller | 159, 162 |
| POL 200 | Tuesday | 7:30-9:30 | A. Bloom | Lash Miller | 158 |
| POL 203 | Wednesday | 7:30-9:30 | W. F. Berns | S.S.H. | 2129 |
| POL 204 | Wednesday | 7:30-9:30 | D. Schwartz | S.S.H. | 2127 |
| POL 206 | Tuesday | 7:30-9:30 | Mrs. V. Sawyer | Faculty of Law | A |
| POL 300 | Wednesday | 7:30-9:30 | P. V. Bishop | Lash Miller | 158 |
| POL 305 | Monday | 7:30-9:30 | F. Fernandes | McLennan Physical Labs. | 137 |
| POL 306 | Thursday | 7:30-9:30 | R. O. Matthews | S.S.H. | 2125 |
| POL 327 | Monday | 7:30-9:30 | R. Gregor | S.S.H. | 597 |
| PRT 200 | Tuesday | 6:00-9:30 | To Be Announced | S.S.H. | 1087 |
| PSY 100 | Tuesday | 7:30-9:30 | J. B. Gilmore, J. B. Thornton, C. D. Webster | McLennan Physical Labs. | 102, 103, 202 |
| PSY 200F | Wednesday | 7:30-9:30 | A. M. Wall | S.S.H. | 2125 |
| PSY 201S | Wednesday | 7:30-9:30 | A. M. Wall | S.S.H. | 2125 |
| PSY 202F | Monday | 7:30-9:30 | Miss M. W. Laurence | S.S.H. | 2125 |

TIMETABLE — ARTS AND SCIENCE WINTER SESSION 1970-71
St. George Campus

| Course | Evening | Time | Instructor | Building | Room |
|-----------------|----------------|------------|--|-------------------------|-----------------------|
| PSY 203F | Monday | 7:30-9:30 | A. J. Arrowood, A. N. Doob | S.S.H. | 2127, 2129 |
| PSY 204F | Tuesday | 7:30-9:30 | R. O. Kroger | S.S.H. | 2125 |
| PSY 205S | Thursday | 7:30-9:30 | Miss J. Preston | S.S.H. | 2127 |
| PSY 209F | Thursday | 7:30-9:30 | J. A. Satterberg | Ramsay Wright | 143 |
| PSY 301S | Monday | 7:30-9:30 | Miss M. W. Laurence | S.S.H. | 2135 |
| PSY 304S | Monday | 7:30-9:30 | A. J. Arrowood | S.S.H. | 2117 |
| PSY 306S | Tuesday | 7:30-9:30 | R. O. Kroger | S.S.H. | 2125 |
| PSY 307F | Tuesday | 7:30-9:30 | J. Graef | S.S.H. | 2127 |
| PSY 313F | Thursday | 7:30-9:30 | T. E. Grusec | S.S.H. | 2127 |
| PSY 319S | Thursday | 7:30-9:30 | J. A. Satterberg | Ramsay Wright | 143 |
| PSY 320 | Tuesday | 7:30-9:30 | Miss L. deToledo | S.S.H. | 2129 |
| PSY 330S | Tuesday | 7:30-9:30 | J. Graef | S.S.H. | 2127 |
| PSY 333S | Monday | 7:30-9:30 | A. N. Doob | Lash Miller | 158 |
| REL 100 | Thursday | 7:30-9:30 | To Be Announced | S.S.H. | 2102 |
| REL 201 | Wednesday | 7:30-9:30 | Mrs. J. Dewart | School of Nursing | 104 |
| REL 305 | Thursday | 7:30-9:30 | M. Harris | S.S.H. | 1084 |
| REL 317 | Wednesday | 7:30-9:30 | G. A. B. Watson | S.S.H. | 2110 |
| SLA 100 | Mon. & Wed. | 7:30-9:30 | R. H. Marshall | S.S.H. | 2101 |
| SLA 208 | Tues. & Thurs. | 7:30-9:30 | D. Struck | S.S.H. | 2119 |
| SLA 210 | Wednesday | 7:30-9:30 | K. Lantz | S.S.H. | 2115 |
| SLA 212 | Thursday | 7:30-9:30 | M. Shonberg | S.S.H. | 2115 |
| SLA 220 | Monday | 7:30-9:30 | K. Lantz | S.S.H. | 2112 |
| SLA 240 | Wednesday | 7:30-9:30 | K. Lantz | S.S.H. | 2112 |
| SLA 320 | Tuesday | 7:30-9:30 | To Be Announced | S.S.H. | 2112 |
| SOC 101 | Tuesday | 7:30-9:30 | Mrs. J. Joyner, To Be Announced | S.S.H. | 2102, 2117 |
| SOC 104 | Wednesday | 7:30-9:30 | W. Phillips | Medical Sciences | 2173 |
| SOC 201 | Thursday | 7:30-9:30 | R. W. Burnside | S.S.H. | 2110 |
| SOC 202 | Tuesday | 7:30-9:30 | R. A. Lucas | S.S.H. | 2135 |
| SOC 203 | Wednesday | 7:30-9:30 | J. G. Reitz | S.S.H. | 2102 |
| SOC 205 | Thursday | 7:30-9:30 | D. Magill | S.S.H. | 1087 |
| SOC 302 | Thursday | 7:30-9:30 | N. W. Bell, J. Turk | S.S.H. | 1083 |
| SOC 305 | Thursday | 7:30-9:30 | R. C. Beals | S.S.H. | 1021 |
| SOC 310 | Tuesday | 7:30-9:30 | To Be Announced | Lash Millar | 161 |
| SOC 311 | Wednesday | 7:30-9:30 | A. Smith | Lash Miller | 161 |
| SPA 100 | Thursday | 6:30-9:30 | J. Ara, J. B. Davies, G. O. Otolara Miss B. E. Segall | McLennan Physical Labs. | 053, 118, 373, 713 |
| *SPA 220Y | Monday | 7:00-9:30 | J. F. Burke, R. Skyrme | School of Nursing | 50, 104 |
| SPA 246F | Thursday | 7:30-9:30 | T. B. Barclay | S.S.H. | 2042 |
| SPA 256S | Thursday | 7:30-9:30 | M. Valdes | S.S.H. | 2042 |
| *SPA 320Y | Tuesday | 7:00-9:30 | A. M. Gordon | School of Nursing | 104 |
| SPA 353S | Wednesday | 7:30-9:30 | J. G. Hughes | S.S.H. | 2120 |
| SPA 366F | Wednesday | 7:30-9:30 | R. J. Glickman | S.S.H. | 2120 |
| STA 232 | Thursday | 7:30-9:30 | J. E. Paloheimo | S.S.H. | 1022 |
| ZOO 212 Lecture | Tuesday | 7:30-9:30 | To Be Announced | Ramsay Wright | 117 |
| Lab | Thursday | 7:00-10:00 | | | |
| ZOO 253 Lecture | Monday | 7:00-9:00 | C. Atwood | Ramsay Wright | 117 |
| Lab | Wednesday | 7:00-9:30 | | | |

*Meets alternate weeks

TIMETABLE — ARTS AND SCIENCE WINTER SESSION 1970-71
Erindale College

| Course | Evening | Time | Instructor |
|------------------|-----------|-----------|-----------------|
| ANT 100E | Wednesday | 7:30-9:30 | To Be Announced |
| BIO 100E Lecture | Wednesday | 7:30-9:30 | P. Ragnekar |
| Lab. | Monday | 7:30-9:30 | |
| CHM 120 Lecture | Wednesday | 7:30-9:30 | To Be Announced |
| Lab. | Monday | 7:30-9:30 | To Be Announced |
| COM 100 | Wednesday | 7:30-9:30 | To Be Announced |
| ECO 100 | Tuesday | 7:30-9:30 | To Be Announced |
| ENG 108 | Thursday | 7:30-9:30 | To Be Announced |
| ENG 328 | Thursday | 7:30-9:30 | T. Adamowski |
| FRE 120 | Monday | 7:00-9:30 | D. Trott |
| FRE 142 | Monday | 7:30-9:30 | M. Raine |
| GGR 101EF | Thursday | 7:30-9:30 | R. G. Putnam |
| GGR 102ES | Thursday | 7:30-9:30 | R. G. Putnam |
| GGR 203EF | Wednesday | 7:30-9:30 | H. Andrews |
| GGR 204ES | Wednesday | 7:30-9:30 | H. Andrews |
| GGR 307EF | Tuesday | 7:30-9:30 | D. Putnam |
| GGR 308ES | Tuesday | 7:30-9:30 | D. Putnam |
| HIS 271 | Monday | 7:30-9:30 | Mrs. A. Golden |
| HIS 301E | Monday | 7:30-9:30 | D. Morton |
| ITA 100 | Thursday | 7:00-9:30 | L. McCormick |
| MAT 135 | Tuesday | 7:30-9:30 | To Be Announced |
| PHL 100 | Thursday | 7:30-9:30 | To Be Announced |
| PHL 211F | Wednesday | 7:30-9:30 | W. Huggett |
| PHL 212S | Wednesday | 7:30-9:30 | W. Huggett |
| POL 100 | Monday | 7:30-9:30 | D. Gardner |
| POL 306 | Tuesday | 7:30-9:30 | B. Kovrig |
| PSY 100 | Tuesday | 7:30-9:30 | T. Alloway |
| PSY 203F | Tuesday | 7:30-9:30 | P. Pliner |
| PSY 209ES | Thursday | 7:30-9:30 | L. Krames |
| PSY 215EF | Thursday | 7:30-9:30 | L. Krames |
| PSY 216ES | Wednesday | 7:30-9:30 | I. M. Spigel |
| PSY 369EF | Tuesday | 7:30-9:30 | P. Pliner |
| PSY 375EF | Wednesday | 7:30-9:30 | I. M. Spigel |
| REL 230E | Tuesday | 7:30-9:30 | L. Elmer |
| SOC 101 | Monday | 7:30-9:30 | A. Bennett |
| SOC 303E | Tuesday | 7:30-9:30 | M. Cooper |
| SOC 312ES | Wednesday | 7:30-9:30 | W. Kallbach |
| SPA 100 | Thursday | 7:00-9:30 | O. Hegyi |

TIMETABLE — EDUCATION COURSES WINTER SESSION 1970-71
FALL TERM (September 21 - December 18)

| Course | Evening | Time | Instructor | Building | Room |
|--|-----------|-----------|-----------------|----------------------|-----------------|
| Administration in the Modern School | Thursday | 7:00-9:00 | To be announced | College of Education | To be announced |
| The Adolescent—At Home, at School, and in the Community | Tuesday | 4:30-6:30 | H. O. Barrett | College of Education | To be announced |
| Applied Linguistics | Thursday | 4:30-6:30 | H. Schogt | College of Education | To be announced |
| Comparative Education | Wednesday | 4:30-6:30 | A. F. Skinner | College of Education | To be announced |
| Current Health Problems in North America | Wednesday | 4:30-6:30 | J. Life | College of Education | To be announced |
| Educational Media | Monday | 7:00-9:00 | D. Clee | College of Education | To be announced |
| Educational Tests and Measurements | Monday | 7:00-9:00 | C. Brodeur | College of Education | To be announced |
| Environmental Studies in Science | Wednesday | 7:00-9:00 | W. A. Andrews | College of Education | To be announced |
| The Individual Student and the School Program | Tuesday | 4:30-6:30 | V. Gilbert | College of Education | To be announced |
| Modern Philosophy and Education | Monday | 4:30-6:30 | L. J. Stott | College of Education | To be announced |
| Outdoor Education | Tuesday | 7:00-9:00 | J. Passmore | College of Education | To be announced |
| Program Development | Monday | 4:30-6:30 | J. W. Greig | College of Education | To be announced |
| Psychology Applied to Education | Wednesday | 7:00-9:00 | A. Zimmerman | College of Education | To be announced |
| Sociology of Education | Thursday | 4:30-6:30 | G. Bancroft | College of Education | To be announced |
| Teaching as an Interpersonal Process | Tuesday | 7:00-9:00 | To be announced | College of Education | To be announced |

TIMETABLE — EDUCATION COURSES WINTER SESSION 1970-71
SPRING TERM (January 4 - April 10)

| Course | Evening | Time | Instructor | Building | Room |
|--|-----------|-----------|----------------------|----------------------|-----------------|
| Administration in the Modern School | Thursday | 7:00-9:00 | To be announced | College of Education | To be announced |
| The Adolescent—At Home, at School and in the Community | Tuesday | 4:30-6:30 | H. O. Barrett | College of Education | To be announced |
| Comparative Education | Wednesday | 4:30-6:30 | A. F. Skinner | College of Education | To be announced |
| Computers in Education | Monday | 7:00-9:00 | To be announced | College of Education | To be announced |
| Culture and Society in German Language Teaching | Thursday | 4:30-6:30 | G. A. Kirk, G. Leech | College of Education | To be announced |
| Culture and Society as it Relates to Teaching of French | Thursday | 4:30-6:30 | R. Roy | College of Education | To be announced |
| Current Health Problems in North America | Wednesday | 4:30-6:30 | J. Life | College of Education | To be announced |
| Educational Media | Monday | 7:00-9:00 | D. Clee | College of Education | To be announced |
| Environmental Studies in Science | Wednesday | 7:00-9:00 | W. A. Andrews | College of Education | To be announced |
| The Individual Student and the School Program | Tuesday | 4:30-6:30 | V. Gilbert | College of Education | To be announced |
| Introduction to Child Psychology | Tuesday | 4:30-6:30 | C. A. Tan-Willman | College of Education | To be announced |
| Modern Philosophy and Education | Monday | 4:30-6:30 | L. J. Stott | College of Education | To be announced |
| Outdoor Education | Tuesday | 7:00-9:00 | J. Passmore | College of Education | To be announced |
| Program Development | Monday | 4:30-6:30 | J. W. Greig | College of Education | To be announced |
| Psychology Applied to Education | Wednesday | 7:00-9:00 | A. Zimmerman | College of Education | To be announced |
| Sociology of Education | Thursday | 4:30-6:30 | G. Bancroft | College of Education | To be announced |
| Teaching as an Interpersonal Process | Tuesday | 7:00-9:00 | To be announced | College of Education | To be announced |

TIMETABLE — APPLIED SCIENCE AND ENGINEERING WINTER SESSION 1970-71
(Open to Engineering Students only)

| Course | Evening | Time | Instructor | Building | Room |
|---|-----------------|------------|--------------------------------|-----------|------|
| Algebra & Analytic Geometry 2410 | Wednesday | 7:30-9:30 | K. A. Selby | Galbraith | 405 |
| Calculus 2411 | Tuesday | 7:30-9:30 | P. Rosenthal | Galbraith | 405 |
| Chemistry 600, 601 | To Be Announced | | | | |
| Electricity 700 | Tuesday | 7:30-9:30 | A. Straughen | Galbraith | 404 |
| Engineering Graphics 135 | Monday | 6:30-10:00 | H. R. Frizzle, C. A. Wrenshall | Galbraith | 405 |
| Mathematical Applica- tions & Computer Programming 13 | Thursday | 7:30-9:30 | V. C. Hamacher | Galbraith | 405 |

TIMETABLE — SCHOOL OF NURSING WINTER SESSION 1970-71
(Open to Nursing Students only)

| Course | Evening | Time | Instructor | Building | Room |
|------------------|-----------|-----------|-----------------|-------------------|------|
| Food Science 103 | Wednesday | 7:30-9:30 | Mrs. E. Brown | Food Sciences | 124 |
| Nursing 110 | Tuesday | 7:30-9:30 | Mrs. J. Dalziel | School of Nursing | 104 |

TIMETABLE — SCHOOL OF PHYSICAL AND HEALTH EDUCATION WINTER SESSION 1970-71
(Open to P.&H.E. Students only)

| Course | Evening | Time | Instructor | Building | Room |
|----------|---------|-----------|-----------------|-------------------------|------|
| Aquatics | Monday | 7:30-9:30 | Mrs. S. Romeiko | 186 Beverley St. | Pool |
| PHE 100 | Tuesday | 7:30-9:30 | Mrs. M. O'Bryan | McLennan Physical Labs. | 134 |

TIMETABLE — ARTS & SCIENCE SUMMER EVENING SESSION 1971

| Course | Evening | Time | Instructor | Building | Room |
|----------|----------------|------------|------------|-------------------------|------------|
| ANT 100 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 2102 |
| ANT 203 | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 1069 |
| ANT 204 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 1069 |
| ANT 241 | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 1070 |
| BOT 100 | Monday | 7:00-10:00 | | Mining | 126 |
| COM 100 | Lecture | | | | |
| | Lab | Wednesday | | | |
| CSC 248Y | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 2117 |
| EAS 120 | Thursday | 7:00-9:30 | | S.S.H. | 1071 |
| EAS 200 | Mon. & Wed. | 7:00-10:00 | | S.S.H. | 2116 |
| EAS 220 | Mon. & Wed. | 7:00-10:00 | | S.S.H. | 2114 |
| ECO 100 | Tues. & Thurs. | 7:00-10:00 | | S.S.H. | 2116 |
| ECO 200 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 2135 |
| ENG 108 | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 2135 |
| ENG 112 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 1083, 2127 |
| ENG 212 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 1083 |
| ENG 328 | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 1072 |
| FRE 100 | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 1072 |
| FRE 120 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 1070 |
| FRE 140 | Mon. & Wed. | 6:30-9:30 | | S.S.H. | 1074 |
| FRE 271 | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 1074 |
| FRE 320 | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 1084 |
| GRH 100 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 1084 |
| HIS 230 | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 1086 |
| HIS 231 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 1088 |
| ITA 100 | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 1088 |
| ITA 220Y | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 2106, 2108 |
| ITA 224Y | Tues. & Thurs. | 7:00-8:15 | | S.S.H. | 2110 |
| ITA 321 | Tues. & Thurs. | 8:15-9:30 | | S.S.H. | 2110 |
| MAT 110 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 1086 |
| MAT 300 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 1071 |
| MAT 325 | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 2127 |
| PHL 100 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 2125 |
| PHL 201F | Mon. & Wed. | 7:00-9:30 | | McLennan Physical Labs. | 202 |
| PHL 321S | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 1087 |
| PHY 222Y | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 1087 |
| POL 100 | Monday | 7:00-9:30 | | McLennan Physical Labs. | 134 |
| POL 300 | Mon. & Wed. | 7:00-9:30 | | McLennan Physical Labs. | 103 |
| POL 320 | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 1085 |
| PSY 100 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 1085 |
| SLA 310 | Mon. & Wed. | 7:00-9:30 | | McLennan Physical Labs. | 102 |
| SLA 340 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 2115 |
| SOC 101 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 2115 |
| SOC 201 | Mon. & Wed. | 7:00-9:30 | | McLennan Physical Labs. | 203 |
| SOC 205 | Tues. & Thurs. | 7:00-9:30 | | S.S.H. | 2106 |
| SPA 100 | Mon. & Wed. | 7:00-9:30 | | S.S.H. | 2110 |
| SPA 220Y | Mon. & Wed. | 7:00-9:30 | | McLennan Physical Labs. | 118, 257 |
| SPA 246Y | Tues. & Thurs. | 7:00-8:15 | | McLennan Physical Labs. | 118 |
| SPA 320Y | Tues. & Thurs. | 8:15-9:30 | | McLennan Physical Labs. | 118 |
| SPA 343Y | Mon. & Wed. | 7:00-8:15 | | McLennan Physical Labs. | 713 |
| | Mon. & Wed. | 8:15-9:30 | | McLennan Physical Labs. | 713 |

TIMETABLE — APPLIED SCIENCE AND ENGINEERING COURSES SUMMER EVENING SESSION 1971

| Course | | Time | Instructor | Building | Room |
|--|----------------|-----------|-----------------|-----------|------|
| Algebra & Analytic Geometry 2410 | Tues. & Thurs. | 7:00-9:30 | To Be Announced | Galbraith | 405 |
| Structure & Properties of Matter 2501 | Mon. & Wed. | 7:00-9:30 | To Be Announced | Galbraith | 405 |



TIMETABLE — ARTS AND SCIENCE SUMMER DAY SESSION 1971

| Course | Time | Building | Room |
|----------|-------------|----------|---------------------|
| ANT 100 | 10:30-12:30 | S.S.H. | 2102 |
| ANT 204 | 10:30-12:30 | S.S.H. | 1069 |
| ANT 241 | 12:30-2:30 | S.S.H. | 1069 |
| APM 336Y | 10:30-11:30 | S.S.H. | 1070 |
| COM 100 | 2:30-4:30 | S.S.H. | 2102 |
| CSC 148Y | 11:30-12:30 | S.S.H. | 1070 |
| EAS 224 | 2:30-4:30 | S.S.H. | 2116 |
| ECO 100 | 12:30-2:30 | S.S.H. | 2102 |
| ECO 204F | 10:30-12:30 | S.S.H. | 1071 |
| ECO 205S | 10:30-12:30 | S.S.H. | 1071 |
| ENG 108 | 10:30-12:30 | S.S.H. | 2106, 2108, 2110 |
| ENG 212 | 2:30-4:30 | S.S.H. | 2106 |
| ENG 306 | 10:30-12:30 | S.S.H. | 1074 |
| ENG 328 | 8:15-10:15 | S.S.H. | 2106 |
| ENG 338 | 10:30-12:30 | S.S.H. | 1072 |
| ENG 346 | 8:15-10:15 | S.S.H. | 1070 |
| ENG 413 | 2:30-4:30 | S.S.H. | 1072 |

TIMETABLE — ARTS AND SCIENCE SUMMER DAY SESSION 1971

| Course | Time | Building | Room |
|----------|-------------|----------|------------|
| FAR 101 | 2:30-4:30 | S.S.H. | 2118 |
| FRE 100 | 10:30-12:30 | S.S.H. | 2129 |
| FRE 120 | 10:30-12:30 | S.S.H. | 1084, 1086 |
| FRE 140 | 12:30-2:30 | S.S.H. | 2129 |
| FRE 271 | 12:30-2:30 | S.S.H. | 1084 |
| FRE 320 | 2:30-4:30 | S.S.H. | 1084 |
| FRE 372 | 10:30-12:30 | S.S.H. | 1088 |
| GER 130 | 8:15-10:15 | S.S.H. | 2114 |
| GER 230 | 10:30-12:30 | S.S.H. | 2114 |
| GER 322 | 12:30-2:30 | S.S.H. | 2114 |
| GGR 100 | 10:30-12:30 | S.S.H. | 622 |
| GLL 200 | 12:30-2:30 | S.S.H. | 1070 |
| GRH 202 | 2:30-4:30 | S.S.H. | 1070 |
| HIS 262 | 12:30-2:30 | S.S.H. | 1071 |
| HIS 271 | 10:30-12:30 | S.S.H. | 1083 |
| ITA 100 | 8:15-10:15 | S.S.H. | 1084, 1086 |
| ITA 220Y | 10:30-11:30 | S.S.H. | 2125 |
| ITA 223Y | 11:30-12:30 | S.S.H. | 2125 |
| JAL 100 | 12:30-2:30 | S.S.H. | 2117 |
| LAT 120F | 8:15-10:15 | S.S.H. | 2116 |
| LAT 121S | 8:15-10:15 | S.S.H. | 2116 |
| MAT 130 | 12:30-2:30 | S.S.H. | 2135 |
| MAT 230 | 12:30-2:30 | S.S.H. | 1072 |
| PHL 100 | 10:30-12:30 | S.S.H. | 1085 |
| PHL 206F | 12:30-2:30 | S.S.H. | 1085 |
| PHL 331S | 12:30-2:30 | S.S.H. | 1085 |
| POL 100 | 12:30-2:30 | S.S.H. | 2118 |
| POL 203 | 10:30-12:30 | S.S.H. | 1087 |
| POL 326 | 12:30-2:30 | S.S.H. | 1074 |
| PSY 100 | 8:15-10:15 | S.S.H. | 2117 |
| PSY 202F | 8:15-10:15 | S.S.H. | 2135 |
| PSY 203F | 8:15-10:15 | S.S.H. | 2102 |
| PSY 301S | 8:15-10:15 | S.S.H. | 2135 |
| PSY 304S | 8:15-10:15 | S.S.H. | 2102 |
| SLA 100 | 10:00-3:00 | S.S.H. | 2115 |
| SLA 208 | 10:00-3:00 | S.S.H. | 2119 |
| SLA 320 | 2:30-4:30 | S.S.H. | 2131 |
| SOC 101 | 2:30-4:30 | S.S.H. | 2135 |
| SOC 201 | 12:30-2:30 | S.S.H. | 1083 |
| SOC 310 | 2:30-4:30 | S.S.H. | 1083 |
| SOC 311 | 10:30-12:30 | S.S.H. | 2127 |
| SPA 100 | 12:30-2:30 | S.S.H. | 2108, 2110 |
| SPA 220Y | 12:30-1:30 | S.S.H. | 1086 |
| SPA 236Y | 1:30-2:30 | S.S.H. | 1086 |

